Chemical

({[(Perfluorooctane-1-sulfonyl)(methyl)amino|methyl}cyclohexyl)methyl prop-2-enoate (Perfluorohexyl)ethyl 2-(hydroxymethyl)-2-propenoate (Perfluorooctyl)-1-propyl prop-2-enoate (Perfluoropropyl)methyl 3-chlorobut-3-enoate [[(Heptadecafluorooctyl)sulfonyl]methylamino]methyl 2-methyl-2-propenoate 1-(Difluoromethoxy)-1,1,2-trifluoroethane 1,1,1,2,2,3,3-heptafluorobutane 1,1,1,2,2,3-Hexafluoropropane 1,1,1,2,2-Pentafluoro-2-methoxyethane 1,1,1,2,2-Pentafluoropropane 1,1,1,2,3,3-Hexafluoropropane 1,1,1,2,3-Pentafluoropropane 1,1,1,2-Tetrafluoro-2-(trifluoromethoxy)ethane 1,1,1,2-Tetrafluoro-2-chloropropane 1,1,1,2-Tetrafluoroethane 1,1,1,3,3,3-Hexafluoro-2-methyl-2-propanol 1,1,1,3,3,3-Hexafluoro-2-propanol 1,1,1,3,3,3-Hexafluoropropane 1,1,1,3,4,4,4-Heptafluoro-3-(trifluoromethyl) but an -2-one1,1,1-Trichloro-2,2,3,3,3-pentafluoropropane 1,1,2,2,3-Pentafluoropropane 1,1,2,2-Tetrafluoro-1-(trifluoromethoxy)ethane 1,1,2,2-Tetrafluoro-1-methoxyethane 1,1,2,3,3-Pentafluoropropane 1,1,2-Trichloro-1,2,2-trifluoroethane 1,1,3-Trichloro-1,2,2,3-tetrafluoropropane 1,1,3-Trichloro-1,2,2-trifluoropropane 1,1,7-Trihydrododecafluoroheptyl methacrylate 1,1'-Oxybis[2-(perfluorodecyl)ethane] 1,1'-Oxybis[2-(perfluorohexyl)ethane] 1,1'-Oxybis[2-(perfluorooctyl)ethane] 1,1-dichloro-1,2,2,3,3-pentafluoropropane 1,1-Dichloro-1,2,2,3-tetrafluoropropane 1,1-Dichloro-1,2,2-trifluoropropane 1,1-dichloro-1,2,3,3,3-pentafluoropropane 1,1-Dichloro-2,2,3,3-tetrafluoropropane 1,1-Dichlorotetrafluoroethane 1,20-Bis(perfluorohexyl)-3,6,9,12,15,18-hexaoxaicosane 1,23-Bis(perfluorohexyl)-3,6,9,12,15,18,21-heptaoxatricosane 1,26-Bis(perfluorohexyl)-3,6,9,12,15,18,21,24-octaoxahexacosane 1,29-Bis(perfluorohexyl)-3,6,9,12,15,18,21,24,27-nonaoxanonacosane 1,2-Bis(2-(perfluorohexyl)ethoxy)ethane 1,2-Bis(perfluorobutyl)-ethene 1,2-Bis(perfluorohexyl)-ethene 1,2-Bis[(2-(perfluorohexyl)ethoxy)ethoxy]ethane 1,2-Dibromohexafluoropropane 1.2-Dibromotetrafluoroethane 1,2-Dichloro-1,1,2,2-tetrafluoroethane 1,2-dichloro-1,1,2,3,3-pentafluoropropane

1,2-Dichloro-1,1,2,3-tetrafluoropropane

	DTVGIDOO1007676
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1652-60-4	DTXSID10895747
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52738-45-1	DTXSID901027664
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662-00-0	DTXSID50894956
677-56-5	DTXSID80987047
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425-88-7	DTXSID10890471 DTXSID40195282
24270-66-4	DTXSID40193282 DTXSID00947103
76-13-1	DTXSID6021377
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421-99-8	DTXSID80564115
2261-99-6	DTXSID70177132
70500 74 4	DTXSID801339284 DTXSID20229135
78522-74-4	
103556-00-9	DTXSID001339278
13474-88-9	DTXSID1042029
70192-63-1	DTXSID00564112
7125-99-7	DTXSID50878690
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4071-01-6	DTXSID90193692
374-07-2	DTXSID9027150
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	DTXSID101339338
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56523-43-4	DTXSID60895530
103580-17-2	DTXSID101339340
661-95-0	DTXSID60880143
124-73-2	DTXSID0041226
76-14-2	DTXSID8026434
422-44-6	DTXSID6042026
149329-26-0	DTXSID20600263

Details and references

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as a propellants in medical inhalers (Sanchis 2013). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020t Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010). Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Greater than 99% by weight of 5110 insulating gas state (3M 2020c), which have excellent dielectric performance and can be utilized Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Can be used in incendiaries, document destruction, and agent defeat warheads, which are designed to neutralize biological and chem Detected in anti-fogging cloths (Herkert 2022). Detected in anti-fogging sprays and cloths (Herkert 2022). Detected in anti-fogging cloths (Herkert 2022). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Detected in anti-fogging sprays and cloths (Herkert 2022). Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999). Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999). Detected in anti-fogging sprays and cloths (Herkert 2022). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). PC-326200 is in the Pesticide Chemical Search with no registration information. PPLS and NPIRS both return it without other information.

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Adhesives	Building and construction	Cleaning Products	Coatings, wax, paint, varnish, and inks	Cosmetics and personal care	Dry Cleaning	Electronics industry	Etching	Explosives and ammunition
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Recycling and Material Recovery	Refrigerant	Scientific, general use	Semiconduct or industry	Textiles Y Y Y	Transportatio n
	Y Y Y Y			Y Y	
	Y Y Y Y Y				
	Y Y Y Y				
	Y Y Y Y Y				
	Y Y Y Y Y				
	Y Y Y Y Y				

1,2-Dichlorohexafluoropropane 1,2-Dichloroperfluorocyclobutane 1,3-Benzenedicarboxamide, N3-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl]-N1-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethylamino]ethylamino]ethylamino]ethylamino]ethylamino]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8]]ethylamino[[(1,1,2,2,3,3,4,4,5,5,6,6]]ethylamino[[(1,1,2,2,3,4,4,5,5,6]]ethylamino[[(1,1,2,2,3,4,4,5,5,6]]ethylamino[[(1,1,2,2,3,4,4,5,5,6]]ethylamino[[(1,1,2,2,3,4,4,5,5,6]]ethylamino[[(1,1,2,2,3,4,4,5,5]]ethylamino[[(1,1,2,2,3,4,4,5,5]]ethylamino[[(1,1,2,2,3,4,4,5,5]]ethylamino[[(1,1,2,2,3,4,4,5,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]]ethylamino[[(1,1,2,2,3,4,4,5]] 1,3-Dichloro-1,1,2,2,3,3-hexafluoropropane 1,3-Dichloro-1,1,2,2,3-pentafluoropropane 1,3-Dichloro-1,1,2,2-tetrafluoropropane 1,3-Difluoro-2-propanol 10:2 Fluorotelomer phosphate diester 10:2 Fluorotelomer phosphate monoester 11-(Difluoromethyl)(perfluorododecyl)methyl prop-2-enoate 11-(Perfluorodecyl)-3,6,9-trioxaundecanol 11-(Perfluorododecyl)-3,6,9-trioxaundecanol 11-(Perfluorohexadecyl)-3,6,9-trioxaundecanol 11-(Perfluorooctyl)-3,6,9-trioxaundecanol 11-(Perfluorooctyl)undecyl methacrylate 11-(Perfluorotetradecyl)-3,6,9-trioxaundecanol 11-[(Perfluorododecanesulfonyl)aminolundecyl 2-methylprop-2-enoate 14-(Perfluorodecvl)-3,6,9,12-tetraoxatetradecanol 14-(Perfluorododecyl)-3,6,9,12-tetraoxatetradecanol 14-(Perfluorohexadecyl)-3,6,9,12-tetraoxatetradecanol 14-(Perfluorooctyl)-3,6,9,12-tetraoxatetradecan-1-ol 14-(Perfluorotetradecyl)-3,6,9,12-tetraoxatetradecanol 15-Crown-5 ether 17-(Perfluorodecyl)-3,6,9,12,15-pentaoxaheptadecanol 17-(Perfluorododecyl)-3,6,9,12,15-pentaoxaheptadecanol 17-(Perfluorohexadecyl)-3,6,9,12,15-pentaoxaheptadecanol 17-(Perfluorooctyl)-3,6,9,12,15-pentaoxaheptadecanol 17-(Perfluorotetradecyl)-3,6,9,12,15-pentaoxaheptadecanol 1-Acetyl-6-(1,1,1,2,3,3,3-heptafluoro-2-propanyl)-3-{[(2,6-14C2)-3-pyridinylmethyl]amino}-3,4-dihydro-2(1H)-quinazolinone 1-Bromo-1,1,2,3,3,3-hexafluoropropane 1-Bromoheptafluoropropane 1-Chloro-1,1,2,2,3-pentafluoropropane 1-chloro-1,1,2,2-tetrafluoroethane 1-Chloro-1,1,2,3,3,3-hexafluoropropane 1-Chloro-1,2,2,3,3-pentafluoropropane 1-Decanaminium, N-decyl-N,N-dimethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonic acid (1:1) 1H,1H,2H,2H-Perfluorodecyltrichlorosilane 1H,1H-Heptafluorobutyl-2-fluoroacrylate 1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methyl-1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(4-hydroxybutyl)-N-methyl-1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(phenylmethyl)-1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-2-propen-1-yl-1-Heptanesulfonamide, N,N,N''-[phosphinylidynetris(oxy-2,1-ethanediyl)]tris[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-1-Heptanesulfonamide, N,N-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-1-Heptanesulfonamide, N,N-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, ammoni 1-Heptanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, hydrochloride (1:1) 1-Heptanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-[2-(phosphonooxy)ethyl] 1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-[2-(phosphonooxy)ethyl]-, ammonium salt (1:2) 1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-[3-(trichlorosilyl)propyl] 1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-[3-(trimethoxysilyl)propyl]-1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-2-propen-1-yl-1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, compd. with 2,2-iminobis[ethanol] (1:1)

1-Hexadecanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bromide, polymers with Bu acrylate, Bu methac

	661-97-2 356-18-3 73019-20-2	DTXSID80862360 DTXSID10870514 DTXSID60880966
	662-01-1	DTXSID90216375
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	68298-89-5	DTXSID4071394
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	67939-97-3	DTXSID70880578
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	68310-02-1	DTXSID6071407
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	67939-98-4	DTXSID8070889
	67584-50-3	DTXSID2070502
	68239-75-8	DTXSID0071334
	67906-41-6	DTXSID4070829
	70225-15-9	DTXSID60880946
	306976-25-0	DTXSID00882727

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010).

Used in ink (Knepper 2012).

Used in ink (Knepper 2012).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed

Detected in anti-fogging cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Detected in anti-fogging cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed

Detected in anti-fogging cloths (Herkert 2022).

Referenced in patent for emulsion form for nuclear magnetic resonance diagnostic spectroscopy for tumor diagnosis and for highligh

Detected in anti-fogging cloths (Herkert 2022).

PC-655556 can be found in PPLS and NPIRS linked to the name [Pyridine ring-2,6-14C] NNI-0101, but no other information can be

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Surface treatment for minerals, particles and inorganic surfaces, including to make low refractive index resin for optical applications Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer

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1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-
1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(4-hydroxybutyl)-N-methyl-
1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(phenylmethyl)-
1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-2-propen-1-yl-
1-Hexanesulfonamide, N,N-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-
1-Hexanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, acetate (1:1)
1-Hexanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, hydrochloride (1:1)
1-Hexanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]-
1-Hexanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-
1-Hexanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-[2-(phosphonooxy)ethyl]-
1H-Heptafluoropropane
1H-Nonafluorobutane
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(4-hydroxybutyl)-N-methyl-
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(phenylmethyl)-
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-2-propen-1-yl-
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-, reaction products with benzene-chlorine-sulfur ch
1-Octanesulfonamide, N,N-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-
1-Octanesulfonamide, N,N',N''-[phosphinylidynetris(oxy-2,1-ethanediyl)]tris[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluc
1-Octanesulfonamide, N,N'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, amm
1-Octanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, hydrochloride (1:1)
1-Octanesulfonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, potassium salt
1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, reaction products with N-ethyl-
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosphonooxy)ethyl]-
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosphonooxy)ethyl]-, diammonium salt
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-(trichlorosilyl)propyl]-
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-2-propen-1-yl-
1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with piperidine (1:1)
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methyl-
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(4-hydroxybutyl)-N-methyl-
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(phenylmethyl)-
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-2-propen-1-yl-
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-methyl-
1-Pentanesulfonamide, N,N-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,5-undecafluoro-
1-Pentanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, hydrochloride (1:1)
1-Pentanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-
1-Pentanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-[2-(phosphonooxy)ethyl]-
1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
1-Propanaminium, 3-[(carboxymethyl)[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-N,N,N-trimethyl-,inner salt
1-Propanaminium, 3-[(carboxymethyl)[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]-N,N,Ntrimethyl-, inno
1-Propanaminium, 3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8,-heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, sulfate (2:1)
1-Propanaminium, 3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, iodide, ammonium
1-Propanaminium, 3-[[(heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, chloride
1-Propanaminium, 3-[[(heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, iodide
1-Propanaminium, N-(2-hydroxyethyl)-3-[(2-hydroxy-3-sulfopropyl)[(tridecafluorohexyl)sulfonyl]amino]-N,N-dimethyl-, hydroxide,
1-Propanaminium, N-(2-hydroxyethyl)-N,N-dimethyl-3-[(3-sulfopropyl)](tridecafluorohexyl)sulfonyl]amino]-,inner salt
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]-, chloride (1:1)
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]-, iodide (1:1)
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]-, sulfate (2:1)
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-, chloride (1:1)
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-, iodide (1:1)
1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-, sulfate (2:1)
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Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids.

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b). Used in pesticide formulations (UNEP 2 Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids.

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1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]-, iodide (1:1) 1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]-, sulfate (2:1) 1-Propanesulfonic acid, 2-methyl-, 2-[[1-oxo-3-[(.gamma.-.omega.-perfluoroC4-16-alkyl)thio]propyl]amino] derivs., sodium salts 1-Propanesulfonic acid, 3-[[3-(dimethylamino)propyl][(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-
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1-Propanaminium, N,N,N-trimethyl-3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]-, chloride (1:1)

1-Propanesulionic acid, 3-[[3-(dimethylamino)propyl][(1,1,2,2,3,3,4,4,5,5,0,0,0-tridecalluoronexyl)sulionyl]amino]-

1-Propanesulfonic acid, 3-[[3-(dimethylamino)propyl][(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]-

1-Propanesulfonic acid, 3-[[3-(dimethylamino)propyl][(heptadecafluorooctyl)sulfonyl]amino]-2-hydroxy-, monosodium salt

 $1-Propanesul fonic\ acid,\ 3-[[3-(dimethylamino)propyl][(tridecafluorohexyl)sulfonyl] amino]-2-hydroxy-,\ monosodium\ salture acid,\ 3-[[3-(dimethylamino)propyl]][(tridecafluorohexyl)sulfonyl]$

1-Propene, 2,3,3,3-tetrafluoro-

2-((Perfluorohexyl)ethoxy)ethanol

2-(11-[Chloro(difluoro)methyl]perfluorododecyl)ethyl prop-2-enoate

2-(2-(2-(Perfluorohexyl)ethoxy)ethoxy)ethanol

2-(2-(Perfluorooctyl)ethoxy)ethanol

2-(Methyl {perfluoro-2-[2,6-bis(ethyl)morpholin-4-yl]ethanesulfonyl}amino)ethyl prop-2-enoate

2-(N-Ethylperfluorooctanesulfonamido)acetic acid

2-(Perfluorohexyl)ethyl 2-(perfluorooctyl)ethyl ether

2-(Perfluorooctane-1-sulfinyl)ethyl prop-2-enoate

2-(Perfluorooctyl)ethyl 2-(perfluorodecyl)ethyl ether

2,2,2-Trifluoroethanol

2,2,2-Tris(perfluoropropyl)ethyl prop-2-enoate

2,2,3,3,3-Pentafluoro-1-propanol

2,2,3,3,4,4,4-Heptafluorobutyl trifluoroacrylate

2,2,3,3-Tetrafluoro-1-propanol

2,3,3,3-Tetrafluoro-2-(trifluoromethyl)propanenitrile

2,3-dichloro-1,1,1,2,3-pentafluoropropane

2,3-Dichloro-1,1,1,2-tetrafluoropropane

2-[(Heptadecafluorooctyl)sulfonyl]ethyl 2-propenoate

2-[Bis(perfluoropentanoyl)amino]ethyl 2-methylprop-2-enoate

2-[Ethyl(perfluorooctanoyl)amino]ethyl 2-methylprop-2-enoate

2-[Methyl(perfluoro(4,7,10,13-tetraoxapentadecanoyl))aminolethyl prop-2-enoate

2-{(Perfluoro[3-(4-ethylpiperidin-1-yl)propanoyl])(methyl)amino}ethyl prop-2-enoate

2-{2-(2-(2-(2-(2-(Perfluorohexyl)ethoxy)ethoxy)ethoxy)ethoxy}ethoxy}ethoxy}ethoxy

2-{2-(2-(2-(2-(2-(2-(Perfluorohexyl)ethoxy)ethoxy)ethoxy)ethoxy}ethoxy}ethoxy

2-{2-(2-[2-(2-(Perfluorohexyl)ethoxy)ethoxy]ethoxy}ethoxy}ethoxy

2-{2-[2-(2-(Perfluorohexyl)ethoxy)ethoxy]ethoxy}ethanol

2-{Methyl[perfluoro(4-ethylcyclohexyl)ethanesulfonyl]amino}ethyl prop-2-enoate

20-(Perfluorodecyl)-3,6,9,12,15,18-hexaoxaicosan-1-ol

20-(Perfluorododecyl)-3,6,9,12,15,18-hexaoxaicosan-1-ol

20-(Perfluorohexadecyl)-3,6,9,12,15,18-hexaoxaicosan-1-ol

20-(Perfluorooctyl)-3,6,9,12,15,18-hexaoxaeicosan-1-ol

20-(Perfluorotetradecyl)-3,6,9,12,15,18-hexaoxaicosan-1-ol

23-(Perfluorodecyl)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol

23-(Perfluorododecyl)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol

23-(Perfluorohexadecyl)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol

23- (Perfluor ohexyl) -3, 6, 9, 12, 15, 18, 21-hepta oxatricos an-1-ol

23-(Perfluorooctyl)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol

23-(Perfluorotetradecyl)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol

26-(Perfluorodecyl)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol

26-(Perfluorododecyl)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol

26-(Perfluorohexadecyl)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol

26-(Perfluorohexyl)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol

26-(Perfluorooctyl)-3,6,9,12,15,18,21,24-octaoxahexaeicosan-1-ol

26-(Perfluorotetradecyl)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol

2-Chloro-1,1,1,2,3,3,3-heptafluoropropane

2-Chloro-1,1,1,2,3,3-hexafluoropropane

	68555-81-7	DTXSID30880615
	67584-58-1	DTXSID60880567
	70225-20-6	DTXSID6072053
	68187-47-3	DTXSID60882960
	38850-60-1	DTXSID1068146
	72785-08-1	
		DTXSID2072594
	94133-90-1	DTXSID9041285
	73772-32-4	DTXSID4041286
	754-12-1	DTXSID4074728
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	54950-01-5	DTXSID701033043
	56900-97-1	DTXSID601339357
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NEUTOSAA		
	885275-70-7	DTXSID601339276
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		DTXSID301027654
	422-05-9	DTXSID4059966
	424-65-7	DTXSID901027652
	76-37-9	DTXSID8058796
	42532-60-5	DTXSID90505110
	422-48-0	DTXSID30303110
	149329-25-9	DTXSID90925910
	124576-86-9	DTXSID401027657
		DTXSID101027684
		DTXSID801027659
		DTXSID601027665
		DTXSID201027675
	136869-09-5	DTXSID901339320
	61633-17-8	DTXSID201339317
		DTXSID501339316
		DTXSID801339315
	33421-32-0	DTXSID801333313
	2204201 57.0	
	2204281-57-0	DTXSID001339385
		DTXSID201339400
		DTXSID301339453
	88247-39-6	DTXSID701034003
		DTXSID001339416
		DTXSID701339386
		DTXSID901339401
		DTXSID001339454
		DTXSID001339323
		DTXSID801339365
		DTXSID101339419
		DTXSID401339387
		DTXSID301339403
		DTXSID701339455
		DTXSID401339325
	88247-40-9	DTXSID901034009
		DTXSID401339420
	76-18-6	DTXSID90226893
	51346-64-6	DTXSID10510943
	21210 01-0	LIXULDIUJIUJIJ

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used in adhesives (U.S. EPA 2020c). Fire extinguishing agent components (U.S. EPA 2020c).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Detected in anti-fogging sprays and cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Detected in anti-fogging sprays and cloths (Herkert 2022).

Detected in anti-fogging cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Detected in anti-fogging cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Detected in anti-fogging cloths (Herkert 2022).

Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Used to prepare the dissolved cellulose ester for casting in optical film (Takiyama et al. 2010).

Greater than 99% by weight of 4710 insulating gas state (3M 2020b), which have excellent dielectric performance and can be utilized Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Detected in anti-fogging sprays and cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Detected in anti-fogging cloths (Herkert 2022).

Detected in anti-fogging sprays and cloths (Herkert 2022).

Detected in anti-fogging sprays and cloths (Herkert 2022).

Detected in anti-fogging cloths (Herkert 2022).

Detected in anti-fogging cloths (Herkert 2022).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

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2H,3H-Perfluorobutane
2H-perfluoro-2-decenoic acid
2H-perfluoro-2-octenoic acid
2H-Perfluoropropane
2-Propenoic acid, 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[meth
2-Propenoic acid, 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with .alpha.-(
2-Propenoic acid, 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with .alpha.-(
2-Propenoic acid, 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with 2-methy
2-Propenoic acid, 2-[[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-eicosafluoroundecyl)sulfonyl]methylamino]ethyl ester
2-Propenoic acid, 2-[[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononyl)sulfonyl]methylamino]ethyl ester
2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]ami
2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, telomer with 2-[methyl[(nonafluorobutyl)sulfonyl]ami
2-Propenoic acid, 2-[butyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[butyl](heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[butyl](pentadecafluoroheptyl)sulfonyl]ar
2-Propenoic acid, 2-[ethyl](1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[ethyl](1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-[methyl[(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, telomer with 2-[ethyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl methac
2-Propenoic acid, 2-methyl-, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl](nonafluorobutyl)s
2-Propenoic acid, 2-methyl-, 2-[[[5-[[[2-[ethyl](1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethoxy]carbon
2-Propenoic acid, 2-methyl-, 2-[[[5-[[[4-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]butoxy]carba
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester, polymer with octadecyl 2-
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester, polymer with octadecyl
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester, polymer with o
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with
2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with 2-[ethyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, polymer with 2-
2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[ethyl[(nonafluorobutyl)sulfor
2-Propenoic acid, 2-methyl-, 2-[methyl](1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-[methyl-(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]met
2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]met
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with 2,4-diisocyanato-1-methylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-r
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with ethenylbenzene, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8
2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymers with acrylic acid, 2-[methyl](perfluoro-C4-8-alkyl)sulfonyl]an
2-Propenoic acid, 2-methyl-, 4-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]butyl ester
2-Propenoic acid, 2-methyl-, 4-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]butyl ester, telomer wi
2-Propenoic acid, 2-methyl-, 4-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]butyl ester
2-Propenoic acid, 2-methyl-, 4-[methyl](1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]butyl ester
2-Propenoic acid, 2-methyl-, 4-[methyl[(1,1,2,2,3,3,4,4,5,5,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]butyl ester
2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-
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2-Chloro-1,1,1,2-tetrafluoroethane

	2837-89-0	DTXSID7029245
	75995-72-1	DTXSID60379668
8:2 FTUCA	70887-84-2	DTXSID60825615
6:2 FTUCA	70887-88-6	DTXSID00892326
	431-89-0	DTXSID4042048
	68227-94-1	DTXSID80882563
	73275-59-9	DTXSID80882780
	73019-28-0	DTXSID20882805
	73038-33-2	DTXSID70882850
	66008-68-2	DTXSID4070376
	66008-69-3	DTXSID70880553
	68867-60-7	DTXSID20882582
	68586-14-1	DTXSID80882629
	68298-60-2	DTXSID9071393
	383-07-3	DTXSID40861915
	68298-62-4	DTXSID70882618
	68298-06-6	DTXSID2071368
	1893-52-3	DTXSID6062048
	59071-10-2	DTXSID3069306
	423-82-5	DTXSID3059975
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	67584-57-0	DTXSID7070509
	68084-62-8	DTXSID1071080
	66008-70-6	DTXSID9070377
	306977-10-6	DTXSID70882810
	14650-24-9	DTXSID80864521
	68555-92-0	DTXSID70882577
	68298-78-2	DTXSID30897541
	70900-40-2	DTXSID40882600
	67906-73-4	DTXSID7070840
	67906-74-5	DTXSID50880571
	67906-70-1	DTXSID8070839
	67906-71-2	DTXSID90880570
	67939-36-0	DTXSID9070870
	67939-37-1	DTXSID90880575
	68877-32-7	DTXSID80882583
	68568-77-4	DTXSID40882584
	68227-87-2	DTXSID80882568
	376-14-7	DTXSID8059922
	68555-91-9	DTXSID90882579
	68867-62-9	DTXSID30882573
	67584-60-5	DTXSID1070511
	67584-61-6	DTXSID6070512
	67939-96-2	DTXSID3070888
	73018-93-6	DTXSID40880964
	68797-76-2	DTXSID30882578
	306976-55-6	DTXSID20108097
	95590-48-0	DTXSID60882743
	306977-58-2	DTXSID70882658
	61577-14-8	DTXSID40880525
	68299-39-8	DTXSID00882560
	67906-40-5	DTXSID9070828
	67939-61-1	DTXSID4070875
	67906-38-1	DTXSID9070826
		DTXSID001026495

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Detected in environmental media in an oilfield (Meng 2021). Extractable from popcorn bags (Zabaleta 2017). Extractable from pet fc Detected in environmental media in an oilfield (Meng 2021). Extractable from popcorn bags (Zabaleta 2017). Extractable from huma Used as a propellants in medical inhalers (Sanchis 2013). Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids.

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

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Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids.

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

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2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 1,1-dichloroethene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-Propenoic acid, 2-methyl-, polymers with Bu methacrylate, lauryl methacrylate and 2-[methyl[(perfluoro-C4-8-alkyl)sulfonyl]amin 2-Propenoic acid, 4-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]butyl ester 2-Propenoic acid, 4-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]butyl ester
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2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl acrylate and vinylide 2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with N-(hydroxymethyl)-2-propenamide, 2-[methyl[(perfluoro-C4-8-alkyl)sulfo 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino

- 2-Propenoic acid, 4-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]butyl ester
- 2-Propenoic acid, 4-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]butyl ester
- 2-Propenoic acid, butyl ester, polymer with 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(nonafluo
- 2-Propenoic acid, butyl ester, polymers with acrylamide, 2-[methyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl acrylate and vinylider
- 2-Propenoic acid, butyl ester, telomer with 2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-r
- 2-Propenoic acid, eicosyl ester, polymer with 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, hexadecyl 2-prope 2-Propenoic acid, eicosyl ester, polymers with branched octyl acrylate, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl acrylate
- 2-Propenoic acid, ethyl ester, polymer with 4-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]butyl 2-]
- 2-Propenoic acid, polymer with 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-propenoic 3,3-Dichloro-1,1,1,2,2-pentafluoropropane
- 38-(Perfluorohexyl)-3,6,9,12,15,18,21,24,27,30,33,36-dodecaoxaoctatriacontan-1-ol
- 3-Chloro-1,1,1,2,2,3-hexafluoropropane
- 3-Chloro-1,1,1,2-tetrafluoropropane
- 3-Chloro-1,1,2,2-tetrafluoropropane
- 4,4',5,5,5',5'-Hexafluoro-2,2,2',2'-tetrakis(trifluoromethyl)-4,4'-bi-1,3-dioxolane
- 5-(Perfluorodecyl)-3-oxapentanol
- 5-(Perfluorododecyl)-3-oxapentanol
- 5-(Perfluorohexadecyl)-3-oxapentanol
- 5-(Perfluorotetradecyl)-3-oxapentanol
- 5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-Heptadecafluoro-4-oxododecyl prop-2-enoate
- 6-[1,2,2,2-Tetrafluoro-1-(trifluoromethyl)ethyl]-2,4(1H,3H)-quinazolinedione
- 7H-Dodecafluoroheptanoic acid
- 8-(Perfluorodecyl)-3,6-dioxaoctanol
- 8-(Perfluorododecyl)-3,6-dioxaoctanol
- 8-(Perfluorohexadecyl)-3,6-dioxaoctanol
- 8-(Perfluorooctyl)-3,6-dioxaoctanol
- 8-(Perfluorotetradecyl)-3,6-dioxaoctanol
- 9-H-Perfluorononanoic acid
- Alcohols, C8-14, .gamma.-.omega.-perfluoro
- Allyl perfluoropentanoate
- Ammonium 2-(N-ethylperfluorooctanesulfonamido)acetate
- Ammonium 4,8-dioxa-3H-perfluorononanoate
- Ammonium 6:2 fluorotelomer sulfonate
- Ammonium 6-[(Perfluoro-1-oxoundecyl)amino]hexanoate
- Ammonium perfluoro[(5-methoxy-1,3-dioxolan-4-yl)oxy]acetate
- Ammonium perfluoro-2-methyl-3-oxahexanoate
- Ammonium perfluorodecanesulfonate
- Ammonium perfluoroheptanesulfonate
- Ammonium perfluorohexanesulfonate
- Ammonium perfluorononanesulfonate
- Ammonium perfluorononanoate
- Ammonium perfluorooctanesulfonate
- Ammonium perfluorooctanoate
- Ammonium perfluoropentanesulfonate
- Benzamide, 4-[[4-[[[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]propylamino]ethyl]amino]carbonyl]phenyl]nr
- $Benzene sulfonic\ acid,\ [[[(1,1,2,2,3,3,4,4,5,5,5-unde cafluor opentyl) sulfonyl] amino] methyl]-,\ sodium\ salt\ (1:1)$
- Benzenesulfonic acid, [[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]methyl]-, sodium salt (1:1)
- Benzenesulfonic acid, [[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]methyl]-, sodium salt (1:1)

	306975-62-2	DTXSID20882885
	306975-85-9	DTXSID10882713
	71487-20-2	DTXSID00882585
	70776-36-2	DTXSID90882574
	127133-66-8	DTXSID20882865
	58920-31-3	DTXSID30880493
	68227-99-6	DTXSID3071303
	68227-98-5	DTXSID8071302
	68227-97-4	DTXSID3071301
	68555-90-8	DTXSID90882594
	306978-04-1	DTXSID70882890
	68227-96-3	DTXSID00882565
	68329-56-6	DTXSID60882581
	68909-15-9	DTXSID50882575
	68228-00-2	DTXSID50882651
	68541-80-0	DTXSID20882941
	422-56-0	DTXSID1042027
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	422-57-1	DTXSID20455371
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	679-85-6	DTXSID80218121
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	76-21-1	DTXSID50226894
	68391-08-2	DTXSID70883049
	84145-17-5	DTXSID30233046
	2991-52-8	DTXSID60880188
ADONA	958445-44-8	DTXSID00874026
	59587-39-2	DTXSID10880512
	83952-11-8	DTXSID701027668
		DTXSID00882626
	62037-80-3	DTXSID40108559
NH4-PFDS	67906-42-7	DTXSID3070830
NH4-PFHpS	68259-07-4	DTXSID8071352
NH4-PFHxS	68259-08-5	DTXSID3071353
NH4-PFNS	17202-41-4	DTXSID9066174
APFN	4149-60-4	DTXSID20880205
NH4-PFOS	29081-56-9	DTXSID9067435
APFO	3825-26-1	DTXSID8037708
NH4-PFPeS	68259-09-6	DTXSID8071354
	73019-19-9	DTXSID00880965
	68299-20-7	DTXSID60880608
	68299-21-8	DTXSID20880609
	51032-47-4	DTXSID20880427

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Can be substituted for mercury, to decrease the rate of hydrogen evolution, in zinc batteries (Kissa 2001).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Mentioned in medical literature for use as NMR reporter molecule (Tressaud and Haufe 2008).

Detected in anti-fogging cloths (Herkert 2022).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed PC-655557 can be found in PPLS and NPIRS linked to the name NNI-0101-Quinazolinedione IV-203, but no other information can Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018).

Detected in anti-fogging cloths (Herkert 2022).

Used as an additive in resins (OECD 2006).

Used in the manufacture of coatings and finishes for a variety of textile, leather, and hard surface treatments, and in the manufacture Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as an emulsifier in fluoropolymer production (EFSA 2011).

Used as a wetting agent fume suppresant for chrome plating (U.S. EPA 1998).

Used in a detergent reduces wiping streaks and reflection glittering of cleaned glass (Kissa 2001).

Used as an emulsifier and dispersing agent in fluoropolymer production, such as PTFE and others (EFSA 2014).

Used in fluoropolymer production as a replacement for PFOA (Hopkins et al. 2018).

Used as a wetting and leveling agent in consumer products such as floor polishes (Wang et al. 2014). Associated with uses in carpet, Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Fluoropolymer polymerisation aid (OECD 2011). Primarily used as a fluoropolymer manufacture processing aid, most notably PVDF Coat glass to make it oil repellent (Kissa 2001). Used as an aluminum etchant (OECD 2011). Used as a mist suppresant in hard chro Fluoropolymer polymerisation aid (OECD 2011). Associated with the manufacture of certain plastics or applied plastics, such as PTF Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer

Y Y Y Y Y (Sherman and Smith 1971). Y Y Y Y Y Y Y (Sherman and Smith 1971). Y Y Y Y Y E and PVDF (Buck et al. 2011; Prevedouros et al. 2006; van der Putte 2010).

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Benzenesulfonic acid, ar-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]methyl]-, sodium salt (1:1)

Benzoic acid, 2,3,4,5-tetrachloro-6-[[[3-[[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]oxy]phenyl]amino]carbonyl]-, potassium

 $Benzoic\ acid,\ 2,3,4,5-tetrachloro-6-[[[3-[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]oxy] phenyl]amino] carbonyl]-,\ potassial personal per$

Benzoic acid, 2,3,4,5-tetrachloro-6-[[[3-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]oxy]phenyl]amino]carbonyl]-,

Benzoic acid, 2,3,4,5-tetrachloro-6-[[[3-[[(heptadecafluorooctyl)sulfonyl]oxy]phenyl]amino]carbonyl]-, monopotassium salt

beta-Alanine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, ethenyl ester

Bis((perfluoroheptyl)methyl) (2E)-but-2-enedioate

Bis(2-hydroxyethyl)ammonium perfluorohexanesulfonate

Bis(2-hydroxyethyl)ammonium perfluorooctanesulfonic acid

Bis[2-(2-[2-(perfluorohexyl)ethoxy)ethoxy]ethyl] ether

Bis[2-(perfluorohexyl)ethyl] 2-butenedioate

Bis[2-(perfluorohexyl)ethyl] fumarate

Bis[2-(perfluorohexyl)ethyl] maleate

Bis[2-[2-(perfluorohexyl)ethoxy]ethyl] ether

Broflanilide

Bromopentafluoroethane

Calcium perfluorohexadecanoate

Carbamic acid, N,N-(4-methyl-1,3-phenylene)bis-, bis[2-[ethyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl] ester

Carbamic acid, N,N-(4-methyl-1,3-phenylene)bis-, C,C-bis[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]acarboxymethyl-3-nonadecafluorodecaneamidopropylammonium hydroxide salt

CFC-213ca

CFC-214cb

CFC-217ca

Chloroheptafluorocyclobutane

Chloropentafluoroethane

Chromium chloride-perfluorooctanoic acid complex

 $Chromium, \ diaquate trachloro[.mu.-[N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,5-undecafluor opentyl) sulfonyl] glycinato-. kappa. O:. kappa$

Chromium, diaquatetrachloro[.mu.-[N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]glycinato-.kappa.O:.kappa.O]]-

 $Chromium,\ diaquate trachloro[.mu.-[N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentade caffuor oheptyl) sulfonyl] glycinato-. kappa. O:. kappa$

Chromium, diaquatetrachloro[.mu.-[N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]glycinato-.kappa.O:.kappa.O']]-.mu.-hydroxybis(2-m cis-Perfluoro methylpropyl-(4-methylcyclohexyl)-amine

Cis-perfluoro-1-methyl-2-ethylcyclohexane

Clorinated perfluorocarbons

Cyclohexanesulfonic acid, 1,2,2,3,3,4,4,5,5,6,6-undecafluoro-, potassium salt (1:1)

Cyclohexanesulfonic acid, 1,2,2,3,3,4,5,5,6,6-decafluoro-4-(1,1,2,2,2-pentafluoroethyl)-, potassium salt (1:1)

Cyclohexanesulfonic acid, decafluoro(pentafluoroethyl)-, potassium salt

Cyclohexanesulfonic acid, decafluoro(trifluoromethyl)-, potassium salt (1:1)

Cyclohexanesulfonic acid, nonafluorobis(trifluoromethyl)-, potassium salt

Cyclohexanesulfonyl fluoride, 1,2,2,3,3,4,4,5,5,6,6-undecafluoro-

Cyclohexanesulfonyl fluoride, decafluoro(1,1,2,2,2-pentafluoroethyl)-

Cyclohexanesulfonyl fluoride, decafluoro(trifluoromethyl)-

Cyclohexanesulfonyl fluoride, nonafluorobis(trifluoromethyl)-

Desflurane

Difluoromethyl 2,2,2-trifluoroethyl ether

Enflurane

Ethane, 1,1,1-trifluoro-2-methoxy-

Ethane, 1,1,2,2-tetrafluoro-

Ethane, 1-bromo-2-chloro-1,1,2,2-tetrafluoro-

Ethanol, 2,2'-iminobis-, compd. with .alpha.,.alpha.'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[.omega.-fluoropoly(difluoromethylene)]

Ethanol, 2,2'-iminobis-, compd. with .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (1:1)

Ethanol, 2,2'-iminobis-, compd. with .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (2:1)

Ethenyl 4-(perfluoroheptyl)butanoate

Ethenyl(perfluorododecane-1-sulfonyl)benzene

Ethyl N-ethyl-N-(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentane-1-sulfonyl)glycinate

Ethyl N-ethyl-N-(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexane-1-sulfonyl)glycinate

68299-29-6	DTXSID30880610
68541-02-6	DTXSID60887450
68815-72-5	DTXSID80881278
68541-01-5	DTXSID50887449
57589-85-2	DTXSID80880488
77073-84-8	DTXSID801027647
24120-18-1	DTXSID10420770
70225-16-0	DTXSID1072050
70225-14-8	DTXSID2072049
	DTXSID901339344
324576-89-8	DTXSID201339286
24120-19-2	DTXSID40897032
55003-96-8	DTXSID10381993
	DTXSID801339339
1207727-04-5	DTXSID50894815
354-55-2	DTXSID90091818
334-33-2	DTXSID501027674
68081-83-4	DTXSID301027074 DTXSID00891758
21055-88-9	DTXSID9066673
2254.06.5	DTXSID301027666
2354-06-5	DTXSID7074321
2268-46-4	DTXSID2062296
422-86-6	DTXSID8059972
377-41-3	DTXSID80437198
76-15-3	DTXSID3026435
55801-89-3	DTXSID001027679
68891-99-6	DTXSID70881282
68891-98-5	DTXSID10881281
68891-97-4	DTXSID50881280
68891-96-3	DTXSID40881279
	DTXSID801027554
	DTXSID501027555
3107-18-4	DTXSID5062847
335-24-0	DTXSID50880117
67584-42-3	DTXSID40880565
68156-07-0	DTXSID50880591
68156-01-4	DTXSID80880584
355-03-3	DTXSID0059875
68156-06-9	DTXSID90880590
68318-34-3	DTXSID50880612
68156-00-3	DTXSID20880583
57041-67-5	DTXSID80866606
1885-48-9	DTXSID5073951
13838-16-9	DTXSID1020562
460-43-5	DTXSID9074569
359-35-3	DTXSID60883371
354-53-0	DTXSID30188880
65530-64-5	DTXSID50882914
65530-74-7	DTXSID80883030
65530-63-4	DTXSID70883029
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	DTXSID201027649 DTXSID701027682
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68555-79-3	DTXSID1071668
68957-53-9	

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as a mist suppresant in hard chrome plating (UNEP 2011). Associated with uses in carpet, fabric, leather, textile, and paper coa Detected in anti-fogging sprays and cloths (Herkert 2022).

Detected in anti-fogging sprays and cloths (Herkert 2022).

Pesticide whose registration application was submitted to the U.S. EPA in 2018 (U.S. EPA 2018). Based on database and the Federal Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used for planar etching of fused silica (Kissa 2001).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Antistatic agents for magnetic tapes and phonograph records (Kissa 2001).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as an oil and water repellant for paper (Wang et al. 2014).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b). Also known as Suprane when used as a drug, it is a curr Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Discontinued drug that was used to cause general anesthesia via inhalation (U.S. FDA 2020).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

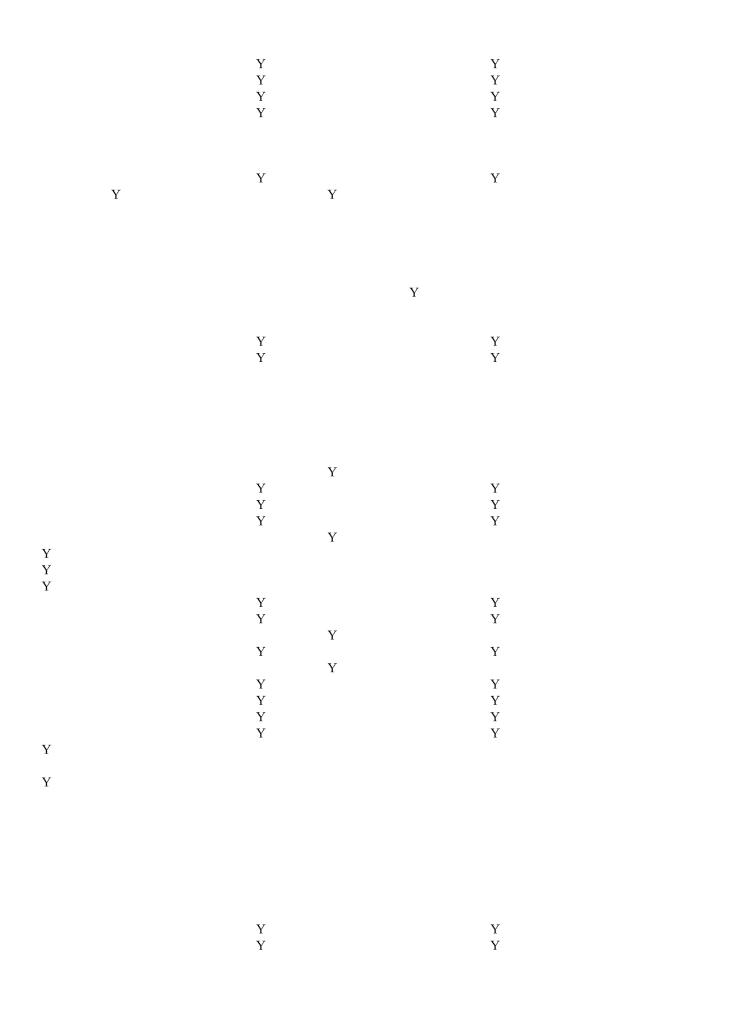
Used in paints and coatings, grouts, and sealers (U.S. EPA 2020c).

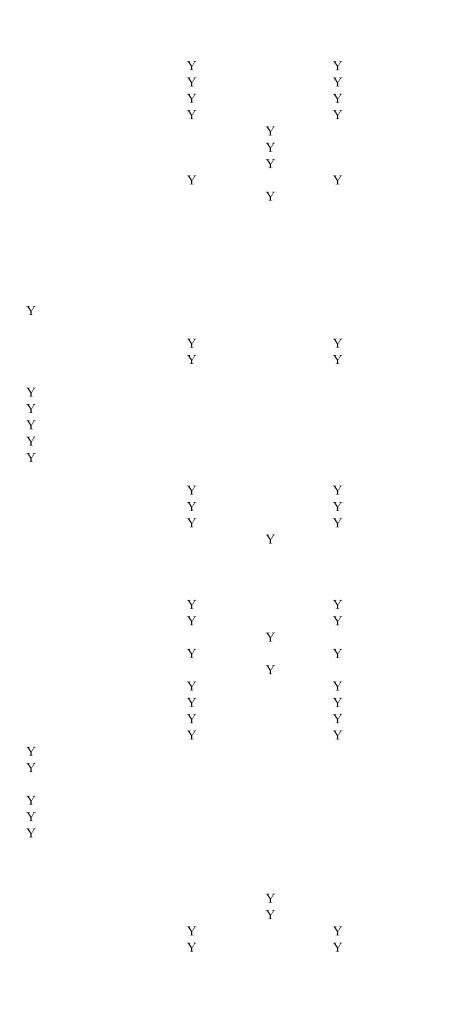
Used in paints and coatings, grouts, and sealers (U.S. EPA 2020c).

Used in paints and coatings, grouts, and sealers (U.S. EPA 2020c).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer

l (Sherman and Smith 1971). l (Sherman and Smith 1971).	Y	Y
	Y Y Y Y	
		Y
	Y	
	s accompanied by hypoxic or ischemic lesions (Maevsky et as accompanied by hypoxic or ischemic lesions (Maevsky et a	
	Y	
l (Sherman and Smith 1971). l (Sherman and Smith 1971).	Y Y	





Ethyl N-ethyl-N-(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulfonyl)glycinate

Ethyl N-ethyl-N-(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonyl)glycinate

Ethyl nonafluorobutyl ether

Ethyl nonafluoroisobutyl ether

Ethylammonium perfluoro-10-(trifluoromethyl)undecanoate

Ethylammonium perfluoro-4-(trifluoromethyl)pentanoate

Ethylammonium perfluoro-6-(trifluoromethyl)heptanoate

Ethylammonium perfluoro-8-(trifluoromethyl)nonanoate

Ethylene chlorotrifluoroethylene

Ethylene tetrafluoroethylene

Fatty acids, C18-unsatd., dimers, 2-[methyl[(perfluoro-C4-8-alkyl)sulfonyl]amino]ethyl esters

Fatty acids, C18-unsatd., trimers, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl esters

Fatty acids, C18-unsatd., trimers, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl esters

Fatty acids, C18-unsatd., trimers, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl esters

Fatty acids, C18-unsatd., trimers, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl esters

Fatty acids, linseed-oil, dimers, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl esters

FC-146

Flubendiamide

Fluorinated ethene-propene copolymer

Fluorinated sulfonamides

Fluoroacrylates

Fluorochloro polyethers

Fluoroethers

Fluorosilsesquioxane

Fluorotelomer acrylate 10:2

Fluorotelomer acrylate 6:2

Fluorotelomer acrylate 8:2

Fluorotelomer alcohol 10:2

Fluorotelomer alcohol 12:2

Fluorotelomer alcohol 14:2

Fluorotelomer alcohol 16:2 Fluorotelomer alcohol 6:2

Fluorotelomer alcohol 8:2

Fluorotelomer alcohols

Fluorotelomer betaine 5:1:2

Fluorotelomer betaine 5:3

Fluorotelomer betaine 7:1:2

Fluorotelomer betaine 7:3

Fluorotelomer betaine 9:1:2

Fluorotelomer betaine 9:3

Fluorotelomer carboxylic acid 5:3

Fluorotelomer carboxylic acid 6:2

Fluorotelomer carboxylic acid 7:3

Fluorotelomer carboxylic acid 8:2

Fluorotelomer iodide 8:2

Fluorotelomer methacrylate 10:2

Fluorotelomer methacrylate 6:2

Fluorotelomer methacrylate 8:2

Fluorotelomer olefin 8:2

Fluorotelomer phosphate diester 6:2

Fluorotelomer phosphate diester 6:2/8:2

Fluorotelomer phosphate diester 8:2

Fluorotelomer phosphate monoester 6:2

Fluorotelomer phosphate monoester 8:2

Fluorotelomer sulfonamido amine 6:2

	68957-54-0 1869-77-8 163702-05-4 163702-06-5 86917-47-7 65418-99-7	DTXSID1071903 DTXSID3062027 DTXSID0073118 DTXSID5073119 DTXSID701026496 DTXSID401026497
	54785-06-7	DTXSID101026498
	65419-00-3	DTXSID801026499
ECTFE	25101-45-5	DTXSID60947962
ETFE	25038-71-5	DTXSID10880370
	306974-63-0	DTXSID90881860
	148240-78-2	DTXSID60881852
	148240-81-7	DTXSID60883013
	148240-82-8	DTXSID70881848
	148240-80-6	DTXSID10881862
	306973-46-6	DTXSID80881859
	37317-76-3	DTXSID301027680
	272451-65-7	DTXSID4047672
FEP		

		DTXSID101026624
	17741-60-5	DTXSID9037743
	17527-29-6	DTXSID9038840
	27905-45-9	DTXSID5067348
10:2 FTOH	865-86-1	DTXSID2029905
12:2 FTOH	39239-77-5	DTXSID3068170
14:2 FTOH	60699-51-6	DTXSID4069422
16:2 FTOH	65104-67-8	DTXSID6070221
6:2 FTOH	647-42-7	DTXSID5044572
8:2 FTOH	678-39-7	DTXSID7029904
FTOHs		DTXSID10893581
5:1:2 FtB	171184-02-4	DTXSID90892517
5:3 FtB	171184-14-8	DTXSID00892341
7:1:2 FtB	171184-03-5	DTXSID50892518
7:3 FtB	171184-15-9	DTXSID10892519
9:1:2 FtB	171184-04-6	DTXSID20892520
9:3 FtB	171184-16-0	DTXSID80892521
5:3 FTCA	914637-49-3	DTXSID20874028
6:2 FTCA	53826-12-3	DTXSID50472556
7:3 FTCA	812-70-4	DTXSID90382620
8:2 FTCA	27854-31-5	DTXSID50451109
	2043-53-0	DTXSID6062123
	2144-54-9	DTXSID6062204
	2144-53-8	DTXSID3047558
	1996-88-9	DTXSID8062101
	21652-58-4	DTXSID7074616
6:2 diPAP	57677-95-9	DTXSID50561590
6:2/8:2 diPAP	943913-15-3	DTXSID20873415
8:2 diPAP	678-41-1	DTXSID90218051
6:2 monoPAP	57678-01-0	DTXSID90558000
8:2 monoPAP	57678-03-2	DTXSID60874027
6:2 FtSaAm	1383438-86-5	DTXSID20892525

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Contact cleaner/lubricant (3M 2020d). HFE-7200 component used in tetrachloroethene dry cleaner replacement mixture called PureI Contact cleaner/lubricant (3M 2020d). HFE-7200 component used in tetrachloroethene dry cleaner replacement mixture called PureI Specified in patent for film-forming fire extinguisher (Chiesa 1974).

Specified in patent for film-forming fire extinguisher (Chiesa 1974).

Specified in patent for film-forming fire extinguisher (Chiesa 1974).

Specified in patent for film-forming fire extinguisher (Chiesa 1974).

Widely used in cables and wires associated with communication facilities, low-frequency plenum cables, optical fibers, printed circuir Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). Coating provides stability, low sur Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used as a stain repellent for leather (Wang et al. 2014).

Registered as pesticide (PC-027602) in 2008 and voluntarily cancelled in 2016 (U.S. EPA 2008, 2016). However, there is a current in Widely used in cables and wires associated with communication facilities, low-frequency plenum cables, optical fibers, printed circui Cleaning solution for electronics manufacturing (Savu et al. 2011).

Electronic coating that can be used on the inside and outside of electronic devices to protect from moisture and corrosion and to provi Act as resin adhesion inhibitors and as agents for mold release, flux barrier, anti-adhesion, anti-blocking, rear-surface treatment, anti Promote uniform surface coverage and improved appearance features and can be used in adhesives applications. These application pr Referenced in patents for surface treatments with compounds that include fluorine and silicone to provide excellent water- and oil-rep Detectable in cosmetics (Whitehead 2021).

Detectable in cosmetics (Whitehead 2021).

Used as a coating for electronic devices and components thereof (U.S. EPA 2020c). Used as a coating for medical consumables and b Detectable in cosmetics (Whitehead 2021). Detected in anti-fogging cloths (Herkert 2022).

Found in bicycle chain lubricant, dishwashing liquid, car polish, and ski gliders (Bloom 2015). Detectable in cosmetics (Whitehead 2 Found in dishwashing liquid, car polish, and ski gliders (Bloom 2015). Detectable in cosmetics (Whitehead 2021). Fluoropolymer made Detected in anti-fogging cloths (Herkert 2022). Found in paper-based food contact material (Kotthoff et al. 2015). Detectable in glov Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Extractable from popcorn bags (Zabaleta 2017).

Extractable from paper food straws (Timshina 2021). Extractable from popcorn bags (Zabaleta 2017). Extractable from pet food contact Extractable from food contact material (Zabaleta 2020).

Extractable from popcorn bags (Zabaleta 2017). Extractable from human and pet food contact material (Zabaleta 2020).

Fluoropolymer manufacturing intermediates (OECD 2011).

Detectable in cosmetics (Whitehead 2021).

Detectable in cosmetics (Whitehead 2021).

Detectable in cosmetics (Whitehead 2021). Fluoropolymer manufacturing intermediates (OECD 2011).

Fluoropolymer manufacturing intermediates (OECD 2011).

Used in ink (Knepper 2012). Detectable in cosmetics (Whitehead 2021). Extractable from paper food straws (Timshina 2021). Extrac Detectable in cosmetics (Whitehead 2021).

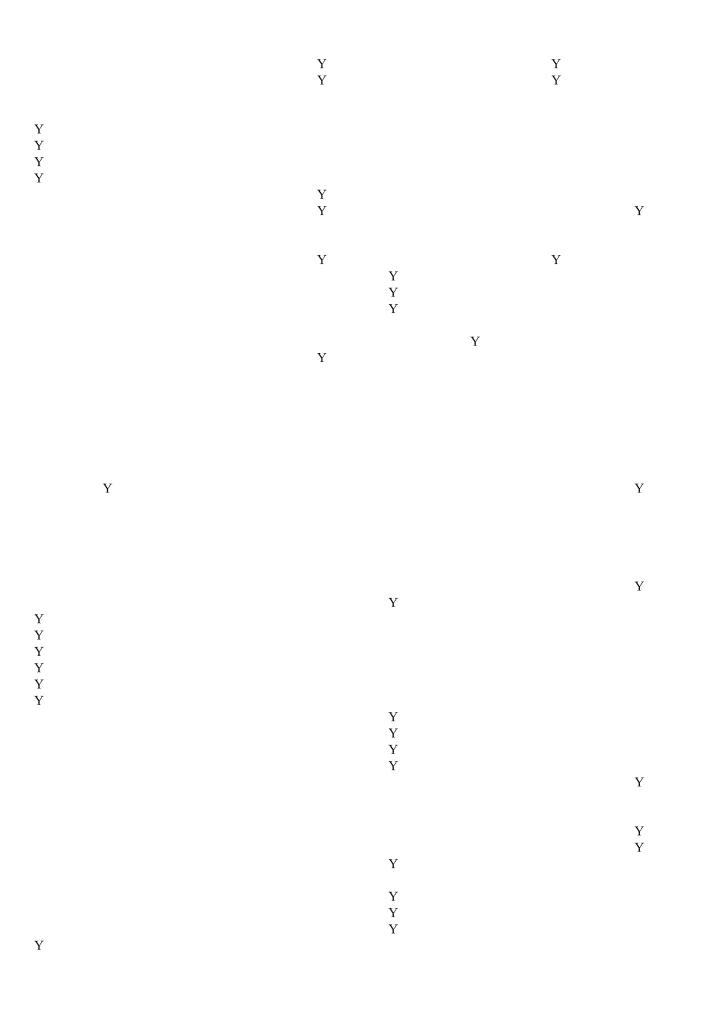
Used in ink (Knepper 2012). Detectable in cosmetics (Whitehead 2021). Extractable from popcorn bags (Zabaleta 2017). Extractable

Used in ink (Knepper 2012). Detectable in cosmetics (Whitehead 2021). Extractable from popcorn bags (Zabaleta 2017).

Used in ink (Knepper 2012). Detectable in cosmetics (Whitehead 2021). Extractable from popcorn bags (Zabaleta 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Y Y			Y Y		
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Y de easy-to-clean surfaces (3M 2020j). Y 021). Detected in anti-fogging Y	Y Y Y Y Y Y Y Y Y Y Y Y	Y Y Y	Y	Y Y Y	Y
act material (Zabaleta 2020).					
	Y Y Y Y	Y Y Y Y Y Y Y			



Y	Y
Y	Y

Y Y Y Y Y Y Y Y Y Y Y

Y

Fluorotelomer sulfonamido amine 8:2

Fluorotelomer sulfonamido betaine 10:2

Fluorotelomer sulfonamido betaine 12:2

Fluorotelomer sulfonamido betaine 6:2

Fluorotelomer sulfonamido betaine 8:2

Fluorotelomer sulfonic acid 6:2

Fluorotelomer sulfonic acid 6:4

Fluorotelomer sulfonic acid 8:2

Fluorotelomer sulphonic acid 4:2

Fluorotelomer thioether amido sulfonic acid 4:2

Fluorotelomer thioether amido sulfonic acid 6:2

Fluorotelomer thioether amido sulfonic acid 8:2

Fluorotelomer thiohydroxy ammonium 6:2

F-methyl-1-oxadecalin

Fulvestrant

HCFC-223ca

HCFC-224ca

HCFC-226da

Heptafluoro-1-methoxypropane

Heptafluoroisopropyl methyl ether

Hexafluorobenzene

Hexafluoropropene Trimer

Hexafluoropropylene

Hexane, 1,6-diisocyanato-, homopolymer, N-(hydroxyethyl)-N-methyl perfluoro-C4-8-alkane sulfonamides- and stearyl alc.-blocked

Hydrochlorofluorocarbons

Hydrofluorocarbons

Hydrofluoroethers

Lithium perfluoroheptanesulfonate

Lithium perfluorohexanesulfonate

Lithium perfluorooctanesulfonate

Methane, oxybis[difluoro-

Methane, trifluoromethoxy-

Methyl nonafluorobutyl ether

Methyl nonafluoroisobutyl ether

Methylfluoroalkoxy copolymer

N,N-Dimethyl-N-(2-hydroxyethyl)-3-((2-hydroxy-3-sulfopropyl)((perfluorohexyl)sulfonyl)amino)propanaminium hydroxide sodium

N-[(Ethenylphenyl)methyl]-N-methylperfluorooctane-1-sulfonamide

 $N\hbox{-}[3\hbox{-}(Ethenyloxy)propyl]\hbox{-}N\hbox{-}methylperfluorooctane-}1\hbox{-}sulfonamide$

N-[3-(Trimethoxysilyl)propyl]perfluorohexanamide

N-Ethenyl-perfluorononanamide

N-Ethyl-N-((tridecafluorohexyl)sulfonyl)glycine

N-Ethyl-N-(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentane-1-sulfonyl)glycine

N-Ethyl-N-(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulfonyl)glycine

N-Ethyl-N-[(heptadecafluorooctyl)sulfonyl]acrylamide

N-Ethyl-N-[3-(trimethoxysilyl)propyl]perfluorooctanesulfonamide

N-Ethylperfluoroheptanesulfonamide

N-Ethylperfluorooctanesulfonamide

N-Methyl-N-(2-oxobut-3-en-1-yl)perfluorooctane-1-sulfonamide

N-Methylperfluoroheptanesulfonamide

N-Methylperfluorohexanesulfonamide

N-Methylperfluorooctanesulfonamide

N-Methylperfluorooctanesulfonamidoethyl acrylate

N-Propylperfluorooctanesulfonamide

Octafluorocyclobutane

Pentafluorobenzoic acid

8:2 FtSaAm 10:2 FtSaB 12:2 FtSaB	1383438-87-6 34455-35-1 278598-45-1	DTXSID00892523 DTXSID90880434 DTXSID80892526
6:2 FtSaB	34455-29-3	DTXSID4041284
8:2 FtSaB	34455-21-5	DTXSID70880432
6:2 FTS	27619-97-2	DTXSID6067331
6:4 FTS	741190-96-5	DTXSID901026492
8:2 FTS	39108-34-4	DTXSID00192353
4:2 FTS	757124-72-4	DTXSID30891564
4:2 FtTAoS		DTXSID00892528
6:2 FtTAoS	62880-95-9	DTXSID90892330
8:2 FtTAoS	755698-73-8	DTXSID30892334
6:2 FtTHN	88992-46-5	DTXSID90892532
	129453-61-8	DTXSID601027615 DTXSID4022369
	422-52-6	DTXSID4075031
	422-54-8	DTXSID9075032
	431-87-8	DTXSID4075033
	375-03-1	DTXSID7074909
	22052-84-2	DTXSID30379276
	392-56-3	DTXSID5043924
	6792-31-0	DTXSID00583621
HFP	116-15-4	DTXSID2026949
	306978-65-4	DTXSID80108098
Li-PFHpS	117806-54-9	DTXSID6073073
Li-PFHxS	55120-77-9	DTXSID90880479
Li-PFOS	29457-72-5	DTXSID2032421
LI-11 O5	1691-17-4	DTXSID2032421 DTXSID2073271
	421-14-7	DTXSID5073903
	163702-07-6	DTXSID4073120
	163702-08-7	DTXSID5042326
MFA		
	81190-38-7	DTXSID20880987
		DTXSID601027677
		DTXSID801027661
	154380-34-4	DTXSID80893356
		DTXSID501027698
	68957-32-4	DTXSID0071889
	68957-31-3	DTXSID5071888
	68957-63-1	DTXSID6071908
	1869-69-8	DTXSID501027650
N. E4ELLac A	61660-12-6 68957-62-0	DTXSID8069484 DTXSID1071907
N-EtFHpSA N-EtFOSA	4151-50-2	DTXSID1071907
N-EIFOSA	4131-30-2	DTXSID1032040
N-MeFHpSA	68259-14-3	DTXSID807027083
N-MeFHxSA	68259-15-4	DTXSID3071359
N-MeFOSA	31506-32-8	DTXSID1067629
N-MeFOSEA	25268-77-3	DTXSID80865199
N-PrFOSA	2266-83-3	DTXSID501027662
	115-25-3	DTXSID9041811
	602-94-8	DTXSID4060527

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Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).
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Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017). Detected in environmental m Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018). Detectable in cosmetics (Whitehead 2021 Detected in current metal plating fume suppressants (MI EGLE 2020).

Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018). Detectable in cosmetics (Whitehead 2021 Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018). Associated with AFFF (Barzen-Hanson a Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Intramuscular injectable listed as having mechanism of action as an estrogen receptor antagonist and a selective estrogen receptor more Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Mentioned in medical literature for use as NMR reporter molecule (Tressaud and Haufe 2008).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Investigated for use with TATB (Yeager et al. 2010). Used in implantable material and devices (Underwood et al. 2003; Scanlon and Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Referenced in patent for solvents for tetrachloroethene alternative dry cleaning solvent (Baran and Newland 2000).

Referenced in patent for solvents for tetrachloroethene alternative dry cleaning solvent (Baran and Newland 2000).

Referenced in patents as the main solvents for tetrachloroethene alternative dry cleaning solvent (Baran and Newland 2000; Evers et Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Used as wetting agent in plastic etching (Kissa 2001). Used as a mist suppresant in hard chrome plating (UNEP 2011). Associated w Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Contact cleaner (3M 2020d, 3M 2020e). Electronic degreaser (3M 2020f). Flux remover (3M 2020g)

Contact cleaner (3M 2020d, 3M 2020e). Electronic degreaser (3M 2020f). Flux remover (3M 2020g)

Widely used in cables and wires associated with communication facilities, low-frequency plenum cables, optical fibers, printed circui Used to deposit copper from acid copper sulfate solution (Kissa 2001).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Used in surface treatment of glasses, natural stones, metals, wood, cellulose, cotton, leather, and ceramics (Wang et al. 2014).

Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Toner or printing ink additive (OECD 2006). Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

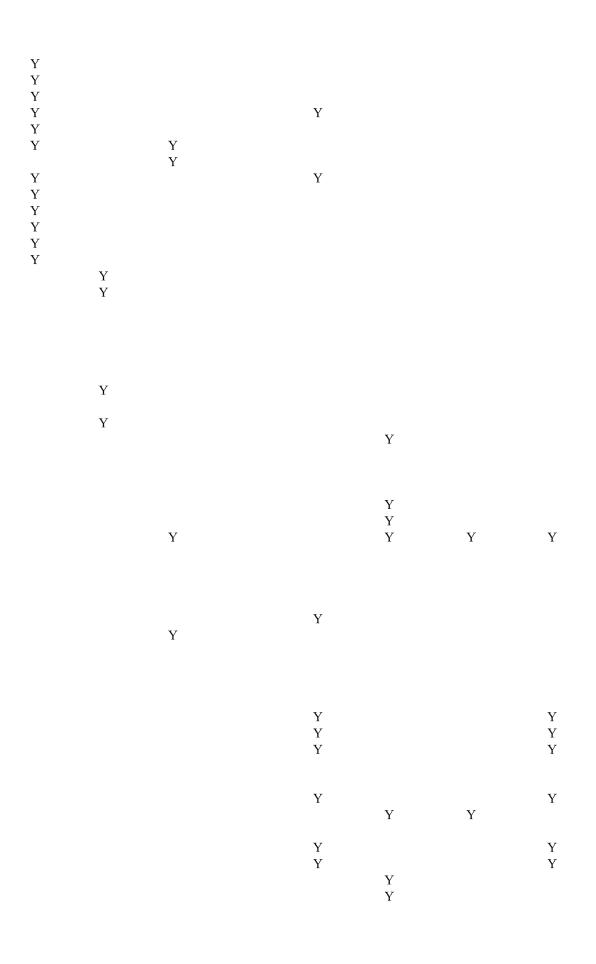
Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b). Detectable in cosmetics (Whitehead 202 Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b). Basis for polymeric textile surface treating Antistats for PVC (Kissa 2001).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as a tracer in underground injection studies (Amonette 2014).

Y Y Y to an animal lung (Kaufman et al. 1998). Y Y Y al. 2005). Solvent for electronic coating that can be used on the inside and Y Y Y Y Ÿ Y (Sherman and Smith 1971). (Sherman and Smith 1971). Y (Sherman and Smith 1971). (Sherman and Smith 1971). Y Y Y (Sherman and Smith 1971).



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Y
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Y
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Y
                                            Y
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Pentafluorodimethyl ether

Pentafluoroethane

Perflenapent

Perflexane

Perflubron

Perflufluoromethylindane

Perfluorinated 2-n-butyl-tetrahydrofuran

Perfluorinated N-methyl isoquinoline

Perfluorinated tertiary amines

Perfluorinated urethanes

Perfluoro(2-((6-chlorohexyl)oxy)ethanesulfonic acid)

Perfluoro(2-cyclohexyl-ethane)1-sulfonic acid

Perfluoro(2-methyl-3-oxahexanoic) acid

Perfluoro(para-ethyl-cyclohexane)sulfonic acid

Perfluoro(para-methyl-cyclohexane)sulfonic acid

Perfluoro(perfluoroethyl)cyclohexylsulfonic acid

Perfluoro(polyether silanes)

Perfluoro-1,2-dimethylcyclobutane

Perfluoro-1,2-dimethylcyclohexane

Perfluoro-1,3,5-trimethylcyclohexane

Perfluoro-1,3-dimethylcyclohexane

Perfluoro-1-methyl-3-propylcyclohexane

Perfluoro-3,7-dimethyloctanoic acid

Perfluoro-4,5-dihydro-4-octene

Perfluoro-4-methyl-octahydroquinolidizine

Perfluoro-4-oxodecalin

Perfluoro-5,6-dihydro-5-decene

Perfluoroalkanes

Perfluoroalkoxy/propylfluoroalkoxy copolymer

Perfluoroalkyl betaines

Perfluoroalkyl suflides

Perfluoroalkylphosphinic acids

Perfluoroalkylphosphonic acids

Perfluoro-bicyc1o(5.3.0)-decane

Perfluorobischlorobutylether

Perfluorobutane

Perfluorobutane sulfonamide amino carboxylate

Perfluorobutane sulfonamido amine

Perfluorobutanesulfonamide

Perfluorobutanesulfonic acid

Perfluorobutanesulfonyl fluoride

Perfluorobutanoic acid

Perfluorobutylcyclohexane

Perfluorobutylcyclopentane

Perfluorocarbons

Perfluorocarboxylic acids

Perfluorocycloalkane

Perfluorocyclohexanesulfonic acid

Perfluorodecalin

Perfluorodecanesulfonic acid

Perfluorodecanesulfonyl fluoride

Perfluorodecanoic acid

Perfluorodibutyl ether

Perfluorodichlorooctane

Perfluorodimethyladamantane

	3822-68-2	DTXSID4073968
	354-33-6	DTXSID1024251
	678-26-2	DTXSID3046613
	355-42-0	DTXSID7046548
	423-55-2	DTXSID5046560
		DTXSID401027621
	335-36-4	DTXSID60871632
		DTXSID601027558
9Cl-PF3ONS	756426-58-1	DTXSID80892506
	646-81-1	DTXSID201020605
HFPO-DA	13252-13-6	DTXSID70880215
	646-83-3	DTXSID70275965
	742-73-4	DTXSID20867516
	133201-07-7	DTXSID50892472
PDCB	2994-71-0	DTXSID20880189
	306-98-9	DTXSID20870500
	374-76-5	DTXSID80380039
	335-27-3	DTXSID0036926
		DTXSID301027559
PF-3,7-DMOA	172155-07-6	DTXSID40379808
	3910-82-5	DTXSID30709115
	86563-85-1	DTXSID401027564
		DTXSID101027589
	84551-43-9	DTXSID10895409
PFA		
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	68697-63-2	
	149697-40-5	DTXSID70372246

	68697-63-2	DTXSID20626382
	149697-40-5	DTXSID70372246
	355-25-9	DTXSID5059876
PFBSaAmA		DTXSID10892534
PFBSaAm	68555-77-1	DTXSID1071666
PFBSA	30334-69-1	DTXSID30880251
PFBS	375-73-5	DTXSID5030030
PBSF	375-72-4	DTXSID20861913
PFBA	375-22-4	DTXSID4059916
	374-60-7	DTXSID40190838
	87744-21-6	DTXSID401027590
	308069-13-8	DTXSID60109225
PFCAs		DTXSID00893893
	2106-55-0	DTXSID70863104
	306-94-5	DTXSID0046511
PFDS	335-77-3	DTXSID3040148
PDSF	307-51-7	DTXSID5059795
PFDA	335-76-2	DTXSID3031860
	308-48-5	DTXSID60184810
	178335-16-5	DTXSID801027592
	55949-22-9	DTXSID501027648

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

No-longer marketed intravenous injectable, is listed as having ultrasound contrast activity (Leland Stanford Junior University 2020; Discontinued oral liquid drug (U.S. FDA 2020).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999).

Referenced in patent for solvents for tetrachloroethene alternative dry cleaning solvent (Baran and Newland 2000). Noted in a patent Enhance anticorrosive paints' protective properties (Kissa 2001).

Detectable in cosmetics (Whitehead 2021). Detected in environmental media in an oilfield (Meng 2021). Extractable from paper food Used additive to the electrolyte of storage batteries or batteries, such as lead storage batteries and Edison storage batteries. The PFSA Used in fluoropolymer production as a replacement for PFOA (Hopkins et al. 2018).

Detectable in cosmetics (Whitehead 2021). Used additive to the electrolyte of storage batteries or batteries, such as lead storage batteries used additive to the electrolyte of storage batteries or batteries, such as lead storage batteries and Edison storage batteries. The PFSA Used as a wetting agent fume suppresant for chrome plating (U.S. EPA 1998).

Applied to siliceous surfaces, such as shower panels or bathroom ceramics to facilitate cleaning (Dams and Hintzer 2016).

Used a tracer in air studies (Begley 1988; Widder 2014).

Used as a tracer in underground injection studies (Amonette 2014, Wells 2007).

Used a tracer in air studies (Begley 1988).

Used a tracer in air studies (Begley 1988, Widder 2014).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for I Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Remove contaminants from surfaces, such as metal, glass, ceramic, plastic, or fabric (Flynn et al. 2003)

Coating provides stability, low surface energy, and chemical resistance for cookware and metals and as powder coatings (Dams and I Referenced in patent as a slurry surfactant for cementing a well (Lecolier and Rivereau 2006).

Patent mentions C2-16 as dielectric fluids for capacitors (Robinson 1952).

Levelling and wetting agents in waxes and coatings (Guo et al. 2012). Used as foam dampening agents in the pharmaceutical and me Levelling and wetting agents in waxes and coatings (Guo et al. 2012). Used as foam dampening agents in the pharmaceutical and me Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Antistats for PVC (Kissa 2001).

Antistats for PVC (Kissa 2001). Found by chemical analysis in cosmetics (Danish Environmental Protection Agency 2018). Describe Mentioned in patent for cleaning or polishing silicon or gallium arsenide, silicon or gallium arsenide wafers coated with thin films or Found in bicycle chain lubricant (Bloom 2015). Found in ski glider powder and soild waxing blocks (Freberg 2010). Detectable in co Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Referenced in patent for solvents for tetrachloroethene alternative dry cleaning solvent (Baran and Newland 2000). FC-43 (perfluoro Extractable from commercial carpet-care liquids, household carpet/fabric-care liquids and foams, floor waxes, and stone/tile/wood servenove contaminants from surfaces, such as metal, glass, ceramic, plastic, or fabric (Flynn et al. 2003)

Used additive to the electrolyte of storage batteries or batteries, such as lead storage batteries and Edison storage batteries. The PFSA Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carp Used in heat-exchanging for electric equipment due to outstanding electrical insulating properties and superior to other gases when e Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration

blood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003).	
to an animal lung (Kaufman et al. 1998). Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al.

blood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003).

to an animal lung (Kaufman et al. 1998).

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to an animal lung (Kaufman et al. 1998). to an animal lung (Kaufman et al. 1998).

blood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003). blood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003).

to an animal lung (Kaufman et al. 1998). to an animal lung (Kaufman et al. 1998).

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Perfluorodimethyldecalin

Perfluorodisulfonic acids

Perfluorododecanesulfonic acid

Perfluorododecanoic acid

Perfluoroethane

Perfluoroethanesulfonic acid

Perfluoroethylcyclohexane

Perfluoroheptadecanesulfonic acid

Perfluoroheptadecanoic acid

Perfluoroheptane sulfonamide amino carboxylate

Perfluoroheptane sulfonamido amine

Perfluoroheptanesulfonic acid

Perfluoroheptanesulfonyl fluoride

Perfluoroheptanoic acid

Perfluorohexadecanesulfonic acid

Perfluorohexadecanoic acid

Perfluorohexane sulfonamide amino carboxylate

Perfluorohexane sulfonamido amine

Perfluorohexanesulfonamide

Perfluorohexanesulfonic acid

Perfluorohexanesulfonyl fluoride

Perfluorohexanoic acid

Perfluorohexyl-ethane

Perfluoromethylbutyl-(4-methylcyclohexyl)-amine

Perfluoromethylcyclohexane

Perfluoromethylcyclopentane

Perfluoromethyldecalin

Perfluoromethylpropyl-(methylcyclopentyl)-amine

Perfluoro-N-(4-methylcyclohexyl)-1-methylpiperidine

Perfluoro-N-(4-methylcyclohexyl)-2-methylpyrrollidine

Perfluoro-N-4-(methylcyclohexyl)-piperidine

Perfluoro-n-butyl-tetrahydrofuran

Perfluoro-N-methyl-decahydroquinoline

Perfluorononanesulfonic acid

Perfluorononanesulfonyl fluoride

Perfluorononanoic acid

Perfluoro-n-propyl-pyran

Perfluorooctadecanesulfonic acid

Perfluorooctadecanoic acid

Perfluorooctahydroquinolidizine

Perfluorooctane

Perfluorooctane sulfonamide amino carboxylate

Perfluorooctane sulfonamido amine

Perfluorooctanesulfonamide

Perfluorooctanesulfonic acid

Perfluorooctanesulfonyl fluoride

Perfluorooctanoic acid

Perfluorooctyl iodide

Perfluorooctylbromide

Perfluorooctyl-ethane

Perfluoropentadecanesulfonic acid

Perfluoropentadecanoic acid

Perfluoropentane sulfonamide amino carboxylate

Perfluoropentane sulfonamido amine

Perfluoropentanesulfonic acid

	54471-59-9	DTXSID60593589
PFDoDS	79780-39-5	DTXSID20873011
PFDoDA	307-55-1	DTXSID8031861
	76-16-4	DTXSID2041915
PFES	354-88-1	DTXSID30870511
	335-21-7	DTXSID20187140
PFHpDS	865756-92-9	DTXSID801009910
PFHpDA	57475-95-3	DTXSID60896623
PFHpSaAmA		DTXSID80892546
PFHpSaAm	67584-54-7	DTXSID2070506
PFHpS	375-92-8	DTXSID8059920
PHpSF	335-71-7	DTXSID9059830
PFHpA	375-85-9	DTXSID1037303
PFHxDS	81735-29-7	DTXSID501009911
PFHxDA	67905-19-5	DTXSID1070800
PFHxSaAmA		DTXSID00892548
PFHxSaAm	50598-28-2	DTXSID7068556
PFHxSA	41997-13-1	DTXSID50469320
PFHxS	355-46-4	DTXSID7040150
PHxSF	423-50-7	DTXSID3059973
PFHxA	307-24-4	DTXSID3031862
	80793-17-5	DTXSID30379857
	444658-68-8	DTXSID901027595
	355-02-2	DTXSID5059874
	1805-22-7	DTXSID7061982
	51294-16-7	DTXSID00871631
	444658-71-3	DTXSID001027598
		DTXSID701027599
	444658-67-7	DTXSID201027601
	86630-50-4	DTXSID601006972
	26446-59-3	DTXSID50896955
	86714-33-2	DTXSID901027602
PFNS	68259-12-1	DTXSID8071356
PNSF	68259-06-3	DTXSID3071351
PFNA	375-95-1	DTXSID8031863
	74948-35-9	DTXSID601026500
PFODS	51604-60-5	DTXSID901009913
PFODA	16517-11-6	DTXSID1066071
	86714-38-7	DTXSID301027604
	307-34-6	DTXSID0059794
PFOSaAmA		DTXSID90892552
PFOSaAm	13417-01-1	DTXSID9065443
PFOSA	754-91-6	DTXSID3038939
PFOS	1763-23-1	DTXSID3031864
POSF	307-35-7	DTXSID5027140
PFOA	335-67-1	DTXSID8031865
	507-63-1	DTXSID0060147
	423-55-2	DTXSID5046560
	77117-48-7	DTXSID90880979
PFPeDS	1379460-34-0	DTXSID601009914
PFPeDA	141074-63-7	DTXSID30893341
PFPeSaAmA		DTXSID50892553
PFPeSaAm	68555-78-2	DTXSID6071667
PFPeS	2706-91-4	DTXSID8062600

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Studied as electrolytes for batteries (Atanasoski 1987).

Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carp Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch stage to condition plastic parts p Referenced in patent for use in dental preparations, including toothpastes, dental creams, tooth powders, lozenges, tablets, chewing g Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017). Potentially used as an anti-er Antistats for PVC (Kissa 2001). Used additive to the electrolyte of storage batteries or batteries, such as lead storage batteries and Ed Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Found in bicycle chain lubricant (Bloom 2015). Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable fron Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Detectable in cosmetics (Whitehead 2021). Referenced in patent for use in dental preparations, including toothpastes, dental creams, Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017). Potentially used as an anti-er Antistats for PVC (Kissa 2001).

Detectable in cosmetics (Whitehead 2021). Antistats for PVC (Kissa 2001). Used additive to the electrolyte of storage batteries or bat Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carpulated in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Used a tracer in air studies (Begley 1988, Widder 2014).

Used a tracer in air studies (Begley 1988).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Mentioned in a patent for a type of resistor dielectric fluid (Lippmaa and Roose 1980).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Detectable in cosmetics (Whitehead 2021). Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a su Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carp Mentioned in a patent for a type of resistor dielectric fluid (Lippmaa and Roose 1980).

Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch stage to condition plastic parts p. Extractable from paper food straws (Timshina 2021).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Used frequently in temporary internal tamponade to treat rhegmatogenous retinal detachment (Tressaud and Haufe 2008).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017). Potentially used as an anti-er Antistats for PVC (Kissa 2001). Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b). Reporte In solution used to clean machine parts after nickel plating (Kissa 2001). Antistats for PVC (Kissa 2001). Found in ski glider powder AFFF based on PSOF became the product of choice from the 1970s until 2002 (Prevedouros et al. 2006). Associated with uses in carp Found in bicycle chain lubricant, dishwashing liquid, car polish, and ski gliders and wax (Bloom 2015). Found in ski glider powder a Fluoropolymer manufacturing intermediates (OECD 2011).

Listed in patent for a homogenous water-in-perfluorochemical stable liquid dispersion for acceptable therapeutic drug administration Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999).

Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Referenced in patent for use in dental preparations, including toothpastes, dental creams, tooth powders, lozenges, tablets, chewing g Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017).

Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanson et al. 2017). Potentially used as an anti-er Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch

to an animal lung (Kaufman	et al. 1998).					
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to an animal lung (Kaufman	et al. 1998).	*7	37		**	
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Perfluoropentanesulfonyl fluoride

Perfluoropentanoic acid

Perfluorophenanthrene

Perfluoropolyethers

Perfluoropropanesulfonic acid

Perfluoropropanoic acid

Perfluoropropylcyclohexane

Perfluorosebacic acid

Perfluorosulfonamides

Perfluorosulfonic acids

Perfluorotetradecanesulfonic acid

Perfluorotetradecanoic acid

Perfluorotributylamine

Perfluorotridecanesulfonic acid

Perfluorotridecanoic acid

Perfluorotriethylamine

Perfluorotrihexylamine

Perfluorotripropylamine

Perfluoroundecanesulfonic acid

Perfluoroundecanoic acid

Perflutren

Perlfuorotriamylamine

Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs.

Phosphonic acid, P-[3-[ethyl](1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]propyl]-

Phosphonic acid, P-[3-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]propyl]-, diethyl ester

Phosphonic acid, P-[3-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]propyl]-

Phosphonic acid, P-[3-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]propyl]-, diethyl ester

Phosphonic acid, perfluoro-C6-12-alkyl derivs.

Phosphoric acid, --perfluoro-C8-16-alkyl esters, compounds with diethanolamine

Poly(difluoromethylene), .alpha.,.alpha.'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[.omega.-fluoro-, ammonium salt (1:1)

Poly(difluoromethylene), .alpha.-[2-[(2-carboxyethyl)thio]ethyl]-.omega.-fluoro-, lithium salt (1:1)

Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-, ammonium salt (1:1)

Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-, ammonium salt (1:2)

Poly(oxy-1,2-ethanediyl), . alpha.-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl) sulfonyl] methylamino] carbonyl]-.omega.--independent of the properties of th

Poly(oxy-1,2-ethanediyl), . alpha.-[2-(methylamino)ethyl]-. omega.-[(1,1,3,3-tetramethylbutyl)phenoxy]-, N-[(perfluoro-C4-8-alkyl)surfluoro-C4-8-alkylluoro-C4-8-alkylluoro-C4-8-alkylluoro-C4-8-alkylluoro-C4-8-alkylluo

Poly(oxy-1,2-ethanediyl), . alpha.-[2-[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl) sulfonyl] propylamino] ethyl]-.omega.-hyllon

 $Poly(oxy-1,2-ethanediyl), \ . alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluor opentyl) sulfonyl] a mino] ethyl]-. omega.-hydroxy-legal sulfonyl sulfon$

 $Poly(oxy-1,2-ethanediyl), \ . alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl] a mino] ethyl]-. omega.-hydroxy-left and the state of th$

Poly(oxy-1,2-ethanediyl), . alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl] amino] ethyl]-.omega.-hydroxidation and the statement of the properties of the pro

Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl](1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluor oheptyl) sulfonyl] amino]ethyl]-.omega.-methological content of the property of th

Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-

Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-.omega.-methoxy-

 $Poly(oxy-1,2-ethanediyl), \ . alpha.-hydro-.omega.-hydroxy-, \ ether \ with \ . alpha.-fluoro-.omega.-(2-hydroxyethyl)poly(difluoromethyleneuromega.-hydroxy-, \ ether \ with \ . alpha.-hydroxy-, \ ether \ . alpha.-hydroxy-,$

Poly(oxy-1,2-ethanediyl), alpha. hydro-omega.-hydroxy-, polymer with 1,6-diisocyanatohexane, N-(hydroxyethyl)-N-methyl perfluc

 $Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl]-.omega.-hydroxy\\ Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoropentyl)sulfonyl]amino]ethyl]-.omega.-hydroxy\\ Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoropentyl)sulfonyl]amino]ethyll-.omega.-hydroxy\\ Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoropentyl)]$

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl]-.omeg

Poly[oxy(methyl-1,2-ethanediyl)], . alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl] amino] ethyl]-.omino[ethyl-1,2-ethanediyl)], . alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,3,3,4,4,5,5,6,6,7,7,8,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,3,4,4,5,5,6,6,7,7,8,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,3,4,4,5,5,6,6,7,7,8,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,3,4,4,5,5,6,6,7,7,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,4,4,5,5,6,6,7,7,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,4,4,5,5,6,6,7,7,8]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,4,4,5,5,6,6,7]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,2,4,4,5,5,6,6]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,4,4,5,5]]] amino] ethyl-1, alpha.-[2-[ethyl[(1,1,2,2,4,4,4,5]]] ami

Polychlorotrifluoroethylene

Polyfluoroalkyl esters

Polyfluoroalkyl phosphate esters

Polyperfluoroethoxymethoxy difluoroethyl peg phosphate

Polyperfluoroisopropyl ether

Polyperfluoromethylisopropyl ether

Polytetrafluoroethylene

PPeSF	375-81-5	DTXSID50880137
PFPeA	2706-90-3	DTXSID6062599
	306-91-2	DTXSID1047029
PFPE		
PFPrS	423-41-6	DTXSID30870531
PFPrA	422-64-0	DTXSID8059970
	374-59-4	DTXSID50515856
	307-78-8	DTXSID50184728
PFSAs		DTXSID30896832
PFTetDS	1379460-39-5	DTXSID80904577
PFTetDA	376-06-7	DTXSID3059921
PFTBA	311-89-7	DTXSID0027141
PFTriDS	791563-89-8	DTXSID20904576
PFTriDA	72629-94-8	DTXSID90868151
	359-70-6	DTXSID40189464
	432-08-6	DTXSID6059990
PFTPA	338-83-0	DTXSID9059834
PFUDS	749786-16-1	DTXSID40904573
PFUDA	2058-94-8	DTXSID8047553
	76-19-7	DTXSID9052503
	338-84-1	DTXSID4059835
	68412-69-1	DTXSID80881990
	71463-79-1	DTXSID0072354
	71463-81-5	DTXSID0072356
	71463-78-0	DTXSID5072353
	71463-80-4	DTXSID5072355
	68412-68-0	DTXSID80882003
	74499-44-8	DTXSID20881873
	65530-70-3	DTXSID60883018
	65530-69-0	DTXSID90883086
	65530-71-4	DTXSID70881863
	65530-72-5	DTXSID00881876
	52032-20-9	DTXSID60897539
	306979-40-8	DTXSID20882880
	52550-45-5	DTXSID50880455
	68298-80-6	DTXSID90883081
	56372-23-7	DTXSID70897540
	68298-81-7	DTXSID60882940
	68958-60-1	DTXSID90883061
	29117-08-6	DTXSID40897537
	68958-61-2	DTXSID50883067
	65545-80-4	DTXSID50863007
	306975-84-8	DTXSID6049727
	68310-17-8	DTXSID00882809
	68259-38-1	DTXSID/0883044 DTXSID10883043
	68259-39-2	
		DTXSID30883025
DOTTE	37338-48-0	DTXSID00897538
PCTFE	9002-83-9	DTXSID80880201
		DTVOIDAGGGGGG
		DTXSID30893588
		DTXSID601026493
	60001 67 0	DTXSID301026494
Dental	69991-67-9	DTXSID20882966
PTFE	9002-84-0	DTXSID7047724

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carp Used in temporary internal tamponade to treat rhegmatogenous retinal detachment (Tressaud and Haufe 2008).

Surface treatments with compounds to provide excellent water- and oil-repellency and properties that are insulating, non-adhesive, a Detectable in cosmetics (Whitehead 2021). Associated with AFFF (Barzen-Hanson and Field 2015; Backe et al. 2013; Barzen-Hanso Detectable in cosmetics (Whitehead 2021). Detected in environmental media in an oilfield (Meng 2021). Used as ion-pairing agent for Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Used as coatings over aluminum powders in energetic core-shell structures (Valluri et al. 2019).

C4-16 perfluorosulfonamides have been used as antistats for PVC (Kissa 2001).

Antistats for PVC (Kissa 2001). Found in ski wax (Kotthoff et al. 2015). Used additive to the electrolyte of storage batteries or batteri Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Found in ski glider powder and soild waxing blocks (Freberg 2010). Found by chemical analysis in cosmetics and sunscreens (Danisl Used as additive in electrolytes in Li-air batteries (Liu et al. 2015). Used in heat-exchanging for electric equipment due to outstandin Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Found in ski glider powder and soild waxing blocks (Freberg 2010). Found by chemical analysis in cosmetics and sunscreens (Danisl Used in heat-exchanging for electric equipment due to outstanding electrical insulating properties and superior to other gases when e One of the main constituents of some of the FluorinertTM liquids that can be used liquid immersion cooling system for server at data a Listed in PFC emulsion for nitric oxide delivery to treat various conditions (Garfield et al. 1999). Component of Fluosol, a drug useft Antistats for PVC (Kissa 2001). Described as satisfactory to be used as surfactants in a sulfuric acid-chromic acid bath for a pre-etch Found in ski glider powder and soild waxing blocks (Freberg 2010). Extractable from commercial carpet-care liquids, household carp Intravenous injectable listed as having ultrasound contrast activity and may diagnose left ventricular dysfunction (Leland Stanford Ju One of the main constituents of some of the FluorinertTM liquids that can be used liquid immersion cooling system for server at data a Surfactants in aftermarket carpet cleaning products (U.S. EPA 2013)

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Surfactants in aftermarket carpet cleaning products (U.S. EPA 2013)

Used for paper packaging treatment (OECD 2006).

Manufacturing of architectural coatings or wood coatings, at a maximum concentration of 0.1% by weight and also in the manufactu Used in photo media coatings (U.S. EPA 2020c).

Manufacturing of architectural coatings or wood coatings, at a maximum concentration of 0.1% by weight and also in the manufactural coating of architectural coatings or wood coatings, at a maximum concentration of 0.1% by weight and also in the manufactural potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

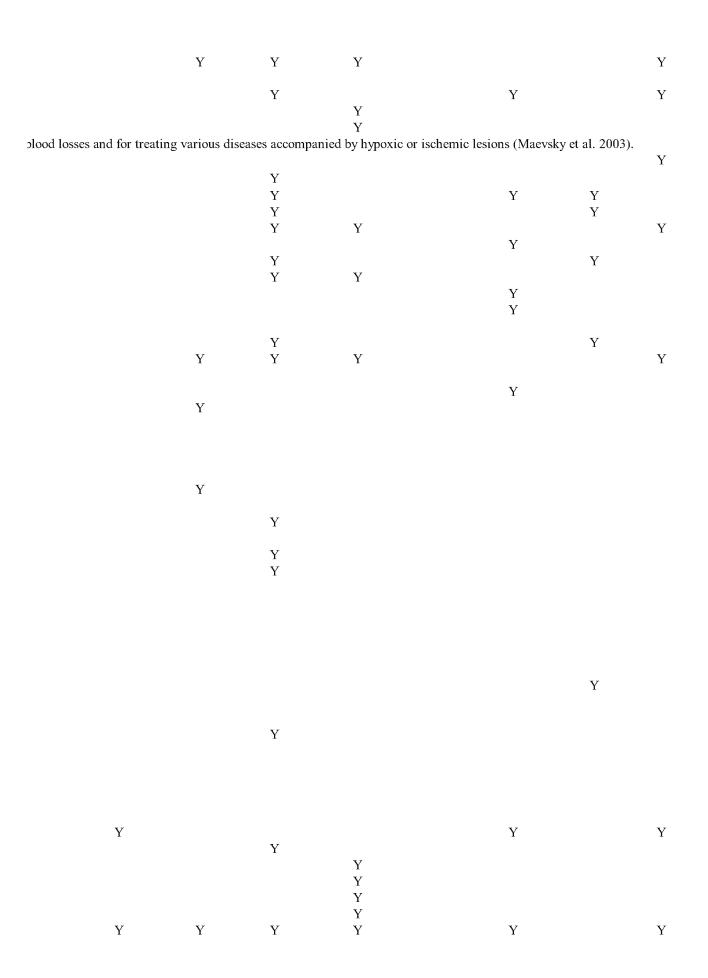
Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

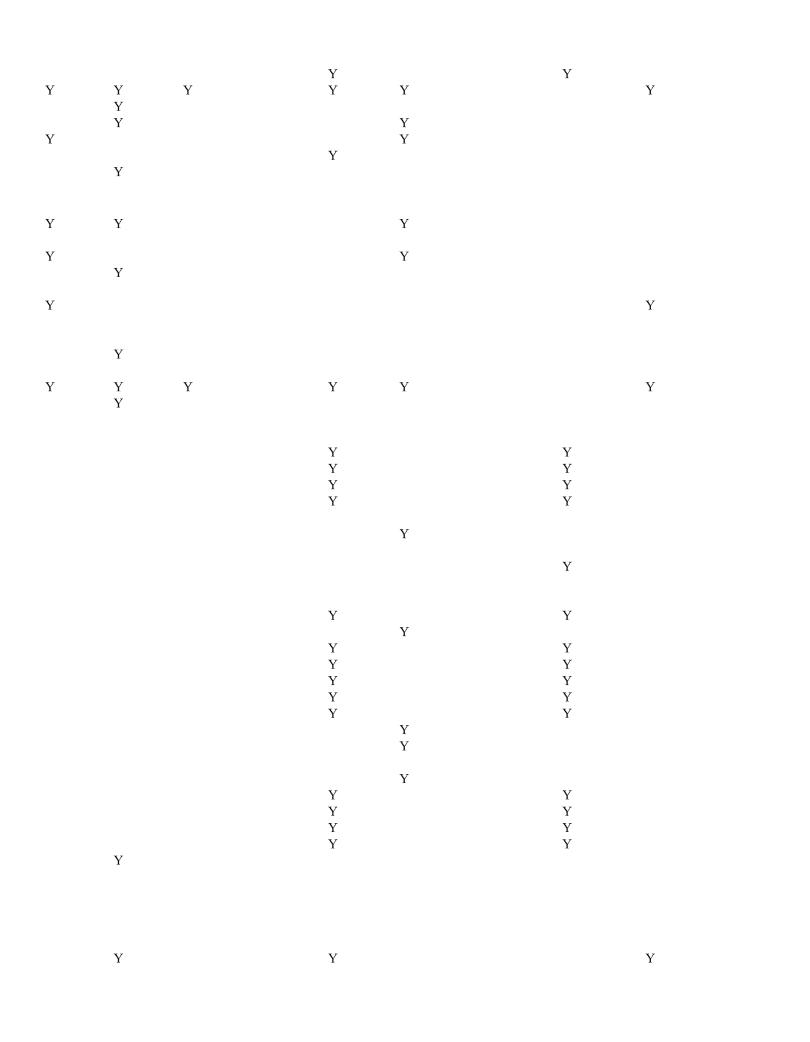
Used in water-based inks and in paints, coatings, ink jet inks, and ink masterbatch (U.S. EPA 2020c).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). Widely used in cables and wires as Act as resin adhesion inhibitors and as agents for mold release, flux barrier, anti-adhesion, anti-blocking, rear-surface treatment, anti Used widely in personal care products, such as sunscreen and cosmetics, for oil and water resistance (Fujii et al. 2013).

Cosmetics including creams and lotions, foundation, shaving cream, blush/highlighter, brow products, mascara/lash products, wax, e Cosmetics including creams and lotions, foundation, shaving cream, blush/highlighter, brow products, mascara/lash products, wax, e Cosmetics including creams and lotions, foundation, shaving cream, blush/highlighter, brow products, mascara/lash products, wax, e Used in dry lubricants for motorcycles, bike chains, conveyer belts, slides, winches, etc. (DuPont 2015, WD-40 2022). Protect stony r





	Y	Y	Y	Y
	Y			
			Y	
V			Y	
Y		Y		Y
		Y Y Y Y		Y Y Y Y
		Y Y	Y	Y Y
		Y Y Y Y		Y Y Y Y
			Y Y Y	
		Y Y Y Y	•	Y Y Y Y
		Y		1
	Y	Y	Y	

Polyvinyl fluoride

Polyvinylidene fluoride

Potassium 2-(N-ethylperfluorooctanesulfonamido)acetate

Potassium 2-(N-Ethylperfluorooctanesulfonamido)acetic acid

Potassium 3-oxaperfluorononane sulfonate

Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate

Potassium N-((heptadecafluorooctyl)sulphonyl)-N-propylglycinate

Potassium N-((heptadecafluorooctyl)sulphonyl)-N-propylglycinate

Potassium N-ethyl-N-((pentadecafluoroheptyl)sulphonyl)glycinate

Potassium N-ethyl-N-((tridecafluorohexyl)sulphonyl)glycinate

Potassium N-ethyl-N-((undecafluoropentyl)sulphonyl)glycinate

Potassium perfluorobutanoate

Potassium perfluorodecanoate

Potassium perfluoroheptanesulfonate

Potassium perfluorohexanesulfonate

Potassium perfluorohexanoate

Potassium perfluorooctanesulfonate

Potassium perfluorooctanoate

Potassium perfluoropentanesulfonate

Propane, 1,1,1-trichloro-2,2,3,3-tetrafluoro-

Propane, 1,1,2,2-tetrafluoro-

Propane, 1,3-dichloro-1,1,2,3,3-pentafluoro-

Propane, 1-chloro-1,1,2,2,3,3-hexafluoro-

Propane, 1-chloro-1,1,2,2-tetrafluoro-

Propane, 3-chloro-1,1,1,2,2-pentafluoro-

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] and 1,2,3-propanetri Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and N,N',2-tris(6 Pyrifluquinazon

Sevoflurane

Sherman PFAS 29

Siloxanes and Silicones, di-Me, mono[3-[(2-methyl-1-oxo-2-propenyl)oxy]propylgroup]-terminated, polymers with 2-[methyl[(perflu

Sodium [ethyl(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentane-1-sulfonyl)amino]acetate

Sodium [ethyl(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexane-1-sulfonyl)amino]acetate

Sodium [ethyl(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptane-1-sulfonyl)amino]acetate

Sodium 2-(N-Ethylperfluorooctanesulfonamido)acetic acid

Sodium p-perfluorous nonenoxybenzenesulfonate

Sulfonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with 1,6-diisocyanatohexane homopolymer and

Sulfonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with 12-hydroxystearic acid and 2,4-TDI, amm

Sulfonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with epichlorohydrin, adipates (esters)

Sulfonamides, C4-8-alkane, perfluoro, N,N'-[1,6-hexanediylbis[(2-oxo-3,5-oxazolidinediyl)methylene]]bis[N-methyl-

Sulfonamides, C4-8-alkane, perfluoro, N-[3-(dimethylamino)propyl], reaction products with acrylic acid

Sulfonamides, C4-8-alkane, perfluoro, N-[3-(dimethyloxidoamino)propyl], potassium salts

Sulfonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl)-, polymers with 1,1'-methylenebis[4-isocyanatobenzene] and polym

Sulfonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products with 1,1'-methylenebis[4-isocyanatobenzene]

Sulfonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products with TDI

Sulfonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products wth 2-ethyl-1-hexanol and polymethylenepolyphological polyme

Sulfonamides, C4-8-alkane, perfluoro, N-methyl-N-(oxiranylmethyl)

Sulfonamides, C4-8-alkane, perfluoro, N-methyl-N-[(3-octadecyl-2-oxo-5-oxazolidinyl)methyl]

 $Sulfonamides,\ C7-8-alkane,\ perfluoro,\ N-methyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl],\ polymers\ with\ 2-ethoxyethyl\ acrylate,\ glycidyl\ acrylate,\ glyc$

Sulfonic acids, C6-12-alkane, perfluoro, potassium salts

Sulfonic acids, C6-8-alkane, perfluoro, compds. with polyethylene-polypropylene glycol bis(2-aminopropyl) ether

Sulfonyl fluoride vinyl ether

Tetraethylammonium perfluorooctanesulfonate

Tetrafluoroethene-hexafluoropropene-vinylidene fluoride terpolymer

Tetrafluoroethene-propene copolymer

PVF	24981-14-4	DTXSID601009764
PVDF	24937-79-9	DTXSID80895097
	2991-51-7	DTXSID3042009
K-NEtFOSAA	2991-51-7	DTXSID3042009
	68136-88-9	DTXSID70893406
	73606-19-6	DTXSID60881236
	55910-10-6	DTXSID60880486
	55910-10-6	DTXSID60880486
	67584-62-7	DTXSID1070513
	67584-53-6	DTXSID7070505
	67584-52-5	DTXSID2070504
K-PFBA	2966-54-3	DTXSID20896624
K-PFDA	51604-85-4	DTXSID001027667
K-PFHpS	60270-55-5	DTXSID9069392
K-PFHxS	3871-99-6	DTXSID3037709
K-PFHxA	3109-94-2	DTXSID40896626
K-PFOS	2795-39-3	DTXSID8037706
K-PFOA	2395-00-8	DTXSID00880026
K-PFPeS	3872-25-1	DTXSID2063214
	422-51-5	DTXSID9075244
		DTXSID1074046
	136013-79-1	DTXSID5042031
	422-55-9	DTXSID0073906
	421-75-0	DTXSID0073904
	422-02-6	DTXSID5073905
	306975-57-5	DTXSID30882593
	306975-56-4	DTXSID60882586
	337458-27-2	DTXSID6058057
	28523-86-6	DTXSID8046614
		DTXSID001027681
	306974-28-7	DTXSID20882724
	68555-69-1	DTXSID7071658
	68555-70-4	DTXSID2071659
	68555-71-5	DTXSID1071660
Na-NEtFOSAA	3871-50-9	DTXSID20880200
OBS	70829-87-7	DTXSID601020833
	148684-79-1	DTXSID90106727
	306973-47-7	DTXSID40108094
	91081-99-1	DTXSID70107898
	306980-27-8	DTXSID10883023
	192662-29-6	DTXSID00883077
	179005-06-2	DTXSID30881884
	178535-22-3	DTXSID60882703
	68608-14-0	DTXSID00882969
	68608-13-9	DTXSID50100367
	160901-25-7	DTXSID00108095
	129813-71-4	DTXSID90881946
	306974-19-6	DTXSID70881868
	98999-57-6	DTXSID40882685
	68391-09-3	DTXSID0098007
	306974-45-8	DTXSID60108096
SFVE	29514-94-1	DTXSID80880246
	56773-42-3	DTXSID5069128
THV (Viton)	9011-17-0	DTXSID30880211
TFEP		

Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). May be used as pyrolant in obscura Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). Protect stony material, marble, tile Used to remove cured epoxy resins from integrated circuit modules (Kissa 2001).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b). Used in pesticide formulations (UNEP 2 One of the main mist suppressants on the Chinese market (Wang et al. 2013a).

One of the main mist suppressants on the Chinese market (Wang et al. 2013a).

In nonaqueous cleaning agents aid in the removal of adhesives and in dry cleaning of textiles and metal surfaces (Kissa 2001). Said to Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as a flotation agent to separate metal salts from soil and in electrowinning of metals in the metal mining industry (Kissa 2001; I Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as a flotation agent to separate metal salts from soil and in electrowinning of metals in the metal mining industry (Kissa 2001; I Coat glass to make it oil repellent (Kissa 2001). Used in solutions for glass etching (Kissa 2001). Used as a mist suppresant in chrom Used as a flotation agent to separate metal salts from soil and in electrowinning of metals in the metal mining industry (Kissa 2001; I Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as a flotation agent to separate metal salts from soil and in electrowinning of metals in the metal mining industry (Kissa 2001; I Potentially used as an anti-crosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Used as refrigerant in air conditioning, refrigeration, etc. (U.S. EPA 2020b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Registered as a pesticide (PC- 555555) in 2013 and remains registered (U.S. EPA 2020e).

Also known as Sojourn and Ultane when used as a drug, it is a currently marketed drug used to cause general anesthesia via inhalatic Can be used to form oleophobic and hydrophilic polymers to treat fabrics that increase their ability to release oily stains when washed Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used as an additive in film-forming fluoroprotein foams (FFFPs) and alcohol-resistant foams (AFFF-AR/FFFP-AR) (Xu 2017). Used Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Associated with uses in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

Potentially used as an anti-erosion additive in fire-resistant phosphate ester aviation hydraulic fluids. Potentially used as a componer Used in carpet, fabric, leather, textile, and paper coatings (U.S. EPA 2002b).

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Basis for PFSA ionomer membrane sold under the brand name Aquivion®, which are used for electrical storage and conversion devi-Used in solutions for glass etching (Kissa 2001). Used as a wetting agent fume suppresant for chrome plating (U.S. EPA 1998, 2007a Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). Used in energetic material and use Used in gaskets, vessel liners, pumps, valve and pipe liners, tubings, coatings, expansion joints/bellows, and heat exchangers in oil an

Y Y	Y		Y Y	Y Y
o contain and prevent oil spills Y				Y Y
Knepper 2012). Knepper 2012).				Y
Knepper 2012).	V			V
Knepper 2012).	Y			Y Y
on (U.S. FDA 2020). I (Sherman and Smith 1971).				
as a surfactant for improving oil p	production (Xu 2017; M Y	Meng 2021). Detected i	n environmental media	in an oilfield (Meng 2021).
	Y Y			
Y			Y	Y Y

Y

		Y	
	Y Y Y Y		Y Y Y Y
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Y Y Y Y Y	Y		Y
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	Y Y Y Y	Y Y	Y Y Y Y
	Y	Y Y Y Y	Y
	Y	Y Y	Y

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Y

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Y

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Tetrafluoroethylene
TFE/CTFE-vinyl ether copolymers
Thiols, C8-20, .gamma.-.omega.-perfluoro, telomers with acrylamide
Trans-Perfluoro methylpropyl-(4-methylcyclohexyl)-amine
Trans-perfluoroindane
Trifluoroacetic acid
Trifluoromethanesulfonic acid
Tris (pentafluorophenyl) borane
Vinylidene fluoride

TFE FEVE	116-14-3	DTXSID6021325
ILVE	70969-47-0	DTXSID10881943
		DTXSID401027607
	75240-06-1	DTXSID001021540
TFA	76-05-1	DTXSID9041578
	1493-13-6	DTXSID2044397
TPFPB	1109-15-5	DTXSID6074594
	75-38-7	DTXSID3021439

Basis for PFSA ionomer membrane sold under the brand name Aquivion®, which are used for electrical storage and conversion devi-Coating provides stability, low surface energy, and chemical resistance for cookware and metals and as powder coatings (Dams and I Fire extinguishing agent components (U.S. EPA 2020c).

Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Listed in patent for emulsions with gas-transporting properties, in particular, for intravenous administration when compensating for l Detected in environmental media in an oilfield (Meng 2021). Ion-pairing agent of choice for reversed-phase high-performance liquid Studied as electrolytes for batteries (Atanasoski 1987).

Used as additive in electrolytes in Li-air batteries (Liu et al. 2015).

Coating for building, roof fabrics, and roof and solar applications films (Dams and Hintzer 2016). Investigated for use with TATB (Y

plood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003). plood losses and for treating various diseases accompanied by hypoxic or ischemic lesions (Maevsky et al. 2003).

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